NATUROPATHIC DOCTOR NEWS & REVIEW

VOLUME 13 ISSUE 12 | DECEMBER 2017 | WOMEN'S HEALTH

Orthopedics

Wrist Extension Injury

Manipulation Pearls

NICK BURATOVICH, NMD



A wrist extension injury is one of the most common wrist injuries, and usually results from a fall on an outstretched hand; it is also known as a FOOSH injury.[1] This can result from a simple fall in the home or workplace, or from an athletic circumstance, such as skateboarding, rollerblading, snowboarding, skiing, or playing volleyball. In can also result from physical activities that involve wrist extension, eg, doing yoga, lifting weights, doing push-ups, using a walker or a cane, or simply pushing oneself up from a chair.

The History

In taking the history of your patient, it is important to find out if the symptoms are a result of an isolated or incidental

Continued on page 5

Vis Medicatrix Naturae

Lactobacillus fermentum

New Applications for Mastitis & Infant Immunity

JEREMY APPLETON, ND

The body of probiotic research continues to expand and diversify, and is accompanied by an expanded understanding of microbiome-host interactions and a broadening array of emerging clinical uses. Evidence now suggests that microbes play a beneficial role in several areas of the body previously considered sterile. Medical dogma is being forced to change significantly as hitherto unrecognized microbe-host interactions are described in the literature. Among the exciting new applications now supported by clinical research is a role for probiotics in managing the common and troubling condition of mastitis. This dovetails neatly with developing concepts of infant immune health, challenging old ideas on the role of microbes in reproduction and health of the mother and infant.[1]

Breastfeeding & Mastitis

Exclusive breastfeeding is recommended by the WHO[2] for infants, at the very least to the age of 6 months, because breast milk provides all the ingredients necessary for proper infant development and growth. However, breastfeeding now also appears to have important effects on the infant microbiome that can determine later health and disease states.

Unfortunately, during the first weeks of breastfeeding, women often experience a range of problems – including breast and nipple pain, nipple cracks, and mastitis – that can interfere with breastfeeding. Mastitis is an infectious, inflammatory condition of the breast that commonly occurs during lactation. The reported incidence varies from 3% to 33%, and may or may not be accompanied by infection.[2] The main etiological agents of breast infection are staphylococci, streptococci, and/or corynebacteria; *Staphylococcus* is considered the most common, especially in acute cases.[3]

Acute Staph mastitis is associated with both local and systemic symptoms; however, local symptoms, involving nipple and/or breast pain and breast engorgement, may also occur independently of any fever or other systemic symptoms. These symptoms of "subacute mastitis" occur in about 10% of all breastfeeding women.[3,4] Coagulase-negative staphylococci, principally *Staphylococcus epidermidis*, and other bacteria (eg, streptococci) are the typical culprits in subacute mastitis, but these cases are often misdiagnosed as being of non-infectious origin or caused by Candida species.[3]

Breast Milk Microbiome

Breast milk is a primary contributor to the development of an infant's gut microbiota. There is an enteric-breast circulation, which is highest at the end of pregnancy and during breastfeeding. This circulation helps explain the potential for modulation of the breast microbiota via oral probiotic supplements.[5] The study of probiotics in

Continued on page 3

INSIDE

NATUROPATHIC NEWS

Association Spotlight: PsychANP ..... >>6
Kabran Chapek, ND
One year since its formation, the PsychANP has gained solid footing and continues to grow.

VIS MEDICATRIX NATURAE

NSCLC & Naturopathic Oncology: Maximizing Outcomes Using KNOWoncology.org – Part 2 ..... >>8
Jen Green, ND, FABNO
Dugald Seely, ND, MSc, FABNO
Heather Wright, ND, FABNO
Two case studies reveal adjunctive treatments for NSCLC and how to search the evidence.

NATUROPATHIC PERSPECTIVE

Anthroposophic Naturopathy: From Half Science to Whole Science ..... >>11
Robert Kellum, ND, PhD, LAc, LMT
Dr Kellum explains why addressing illness at a soul level is our only doorway to evolve.

TOLLE CAUSAM

A Case Study in Osteoporosis: Use of a Novel Osteoinductive Compound ..... >>13
Jaquel Patterson, ND
Oral bone morphogenetic proteins & growth factors reverse a case of osteoporosis.

PRACTICE BUILDING

Search Engine Optimization: 5 Essential Steps to Improve Local SEO for Your Practice ..... >>18
Teerawong Kasiolarn, ND, MSAc, LAc
Ensuring website traffic through proper SEO can greatly boost your success.

DOCERE

Women's Personal Care Products: A Dangerous Source of EDCs ..... >>20
Alexsia Priolo, ND
Many of the products used daily by women are disrupting endocrine function and beyond.

TOLLE TOTUM

Female Sexual Dysfunction ..... >>22
Cristina Romero-Bosch, NMD
This article lists evaluative and treatment tips for this commonly unrecognized condition.

NATURE CURE CLINICAL PEARLS

Hydropathic Medical Adviser, 1900 ..... >>23
Sussanna Czeranko, ND, BBE
Dr Czeranko outlines Ludwig Staden's and Eduard Bilz's contributions to water cure.

EDUCATION

The Poets & the Generals: What They Knew About Professional Formation ..... >>27
David J. Schleich, PhD
Generals, emperors, and literary giants can teach us about Integrative Medicine invaders.

Available online at ndnr.com

ndnr
Naturopathic Doctor News & Review
PO Box 2968
Scottsdale, AZ 85252-2968
Phone 888.627.8677
Fax 480.275.7712
www.ndnr.com

NEW! OUR MOST ADVANCED PROBIOTIC



CoreBiotic™

Advanced Spore Based Probiotic

ADVANCED, COMPREHENSIVE MICROBIOME SUPPORT*

- **ADVANCED:** Each strain has undergone rigorous genomic studies, guaranteeing accurate specificity, potency and safety
- **COMPREHENSIVE:** Each strain has published research covering intestinal health and beyond.
- **MICROBIOME SUPPORT:** 11 Billion CFU per dose
- **CONVENIENT:** 1 dose per day, no refrigeration, dairy-free, vegan & competitively priced



THE IMPORTANCE
OF GENOMICALLY SEQUENCED STRAINS

The development of probiotic formulas has moved beyond including general groups of organisms to using specific strains. Older probiotic formulations might list Bacillus Subtilis, for example, without identification of the strain number. Advanced formulations include only those that have been identified by genomic sequencing and have been assigned a specific strain number that is authenticated and registered at an internationally recognized biological materials resource center. Only these strain-specific probiotics have undergone rigorous genomic studies; guaranteeing accurate specificity, potency and safety.

Joseph Burrascano Jr., MD

"I am impressed with the formula of CoreBiotic™ - it has all the things I look for when recommending this type of product."



Researched Nutritionals® solutions for life

CALL 800.755.3402

Tel: 805.693.1802 • Fax: 805.693.1806 • CustomerService@ResearchedNutritionals.com
www.ResearchedNutritionals.com | *Available only through healthcare professionals*

*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.

Continued from bottom of page 1

human milk is a relatively recent field of research, and the existence of a human milk microbiome has been known and described for just over a decade. In 2003, the first description of a physiologic microbiome in breast milk was described by Martín et al.[6] Prior to 2003, breast milk was considered sterile and the presence of bacteria in human milk was attributed to contamination from the infant's oral cavity or the mother's skin. However, there is evidence for a non-pathogenic role of other bacteria in breast milk.

For example, pre-colostrum, secreted by some women before delivery, already contains microbiota that characterize human milk. The hypothesis that these organisms are of skin origin is belied by the detection of bacteria and DNA from anaerobic species characteristic of gut microbiota and which would not survive aerobically on the skin; presence of the strict anaerobe, *Bifidobacterium*, that is common in breast milk, is a salient example. It is also noteworthy that these obligate anaerobic genera in breast milk are also in maternal feces.[7]

Current research is focusing on bacterial composition of the breast milk microbiome, including the influence of the maternal environment and mode of delivery. Other compelling areas of investigation include the pathways of bacterial transfer to milk ducts, possible benefits of specific bacterial strains in the treatment of maternal mastitis, and disease prevention in children.[8]

Early host-microbe interactions and the quality and composition of colonization help determine later health. Under healthy conditions, breast milk has been shown to contain lactobacilli, streptococci, staphylococci, Enterococcus spp, bifidobacteria, and enterococci as the predominant bacterial groups.[6,9,10]

Human mastitis can be characterized as mammary dysbiosis, in which populations of mastitis-inducing pathogens and pathobionts increase at the expense of the normal mammary microbiota.[3] Certain lactic acid bacteria, isolated from the breast milk of healthy women, can inhibit pathogenic bacteria via co-aggregation, production of antimicrobial compounds, and competition for binding locations, etc.[11,12] Lactobacilli isolated from breast milk also have immunomodulatory properties.[13]

L fermentum for Mastitis

The clear benefits of breastfeeding highlight the fact that there is a downside to prematurely terminating breastfeeding. But women with mastitis are often faced with a painful dilemma with limited treatment options. Mammary dysbiosis, which can be triggered by a variety of host, microbial, and medical factors, often leads to acute, subacute, or subclinical mastitis. Mastitis is thus frequently responsible for weaning earlier than is optimal for the immune development of the infant as well as for maternal-infant bonding.

Conventional mastitis treatments are suboptimal and fraught with risk; multi-drug resistance to antibiotics, biofilm formation, dysbiosis in mother and infant, and disruption of adaptive host immune response are common. Alternative strategies to antibiotics are thus highly desirable.[14] Fortunately, selected lactobacilli strains isolated from breast milk (ie, *Lactobacillus fermentum* and *L salivarius*) have demonstrated efficacy and represent a promising new treatment option for this painful condition.

Some strains of the gram-positive lactobacilli formerly classified as *Lactobacillus fermentum* (eg, RC-14) have since been reclassified as *Lactobacillus reuteri*. Clinical trials have documented the efficacy of oral *L fermentum* for a variety of conditions, including atopic dermatitis,[15] vaginal dysbiosis,[16] oxidative stress,[17] immunity in endurance athletes,[18,19] and ulcerative colitis (in combination with *L delbruekii*).[20] These studies are outside the scope of this paper.

Mastitis Studies

Two clinical trials have specifically addressed the efficacy of *L fermentum* for acute mastitis.

The first was an open-label study with 3 arms, comparing 2 strains of lactobacilli and antibiotics in 352 women with mastitis.[21] *L fermentum* CECT5716 (also known as Hereditum Lc-40) or *L salivarius* CECT5713) were administered at a dose of 9 billion CFU/day for 21 days (groups A and B). These strains were isolated from milk samples of the women in groups A and B, respectively. A third group (group C) received antibiotic therapy. On Day 0, the mean bacterial counts in milk samples of the 3 groups were similar, and lactobacilli could not be detected. On Day 21, the mean bacterial counts in the probiotic groups were lower than those in the control group. The women taking probiotics showed more improvement and had less recurrence of mastitis compared to the women taking antibiotics. The authors concluded that the probiotics *L fermentum* CECT5716 or *L salivarius* CECT5713 represented efficient alternatives to antibiotics for treating infectious mastitis during breastfeeding.[21]

In the second study – a randomized, double-blind, placebo-controlled clinical trial – researchers in Spain evaluated 3 different doses of *L fermentum* CECT5716 to assess its ability reduce the load of *Staphylococcus* in the breast milk of 148 women suffering from painful breastfeeding.[22] Three groups received the probiotic for 3 weeks, at doses of 3, 6, or 9 billion CFU/day. A fourth group (controls) received maltodextrin. The primary outcome was *Staphylococcus* counts in breast milk. Secondary outcomes were bacterial counts of *Streptococcus*, *Lactobacillus*, and total bacteria in breast milk, IgA and IL-8 concentrations in breast milk, and scores related to breast pain. After 3 weeks, *Staphylococcus* counts were significantly reduced in the probiotic groups compared to baseline levels, whereas there was no change in the maltodextrin group. Women in all



3 probiotic groups experienced significant reductions in pain during breastfeeding.[22]

Clinical efficacy for mastitis was also demonstrated in a study evaluating a combination of *L salivarius* and *L gasseri*.[23] Twenty women with staphylococcal mastitis were randomly divided into 2 groups. Those in the probiotic group ingested 10 billion CFU/day of *Lactobacillus salivarius* CECT5713 plus 10 billion CFU of *Lactobacillus gasseri* CECT5714 for 4 weeks, while those in the control group received placebo. Both probiotic strains were isolated from breast milk. After 1 month, the mean staphylococcal count in the probiotic group (2.96 log10 CFU/mL) was lower than that in the control group (4.79 log10 CFU/mL). By Day 14, women in the probiotic group showed no clinical signs of mastitis. In contrast, mastitis persisted throughout the study in the controls.[23]

L fermentum for Infant Immune Health

It is now well known that oral administration of lactobacilli and bifidobacteria enhances both innate and adaptive immunity in the host.[24-28] Consumption of these bacteria increases IgA, which contributes to the anti-infectious properties of these lactic acid bacteria in combating infectious diarrhea.[29,30] The function of natural killer (NK) cells is also improved by consuming some of these probiotic bacteria.[25,31] For this reason, they have been proposed as co-adjuvants to improve the efficacy of vaccines.[32-34]

As previously discussed, breast milk of healthy women imparts commensal lactic acid bacteria to the infant gut.[11] Breastfeeding can thus provide significant protection against infections in newborns and infants; evidence of this dates back more than 30 years.[35-38] This activity is understood to be mediated by numerous breast milk constituents, including lactoferrin, maternal immunoglobulins, oligosaccharides, lactoperoxidase, and lysozyme.[39,40] The potential for lactic acid bacteria (as probiotics) to contribute to this protective effect deserves serious consideration.[11]

L fermentum Lc40, considered safe and well tolerated in infants,[41,42] has been further shown to reduce the incidence of infantile gastrointestinal and respiratory infections. Maldonado et al examined the impact of low-dose *L fermentum* Lc40 on the incidence of infections in infants aged 6-12 months.[43] In a randomized, double-blind, controlled clinical trial, infants were randomized to receive either a formula supplemented with *L fermentum* (200 million CFU/day) plus galactooligosaccharides (GOS) (treatment group) or the same formula supplemented with only GOS (control group) for 6 months. The primary outcome was incidence of infections for the duration of the study. Compared to the control group, by the end of the study period the treatment group experienced a significant 46% reduction in the incidence rate of gastrointestinal infections, a 27% reduction in the incidence of upper respiratory tract infections, and a 30% reduction in the total number of infections. The researchers concluded that *L fermentum* Lc40 was "useful for the prevention of community-acquired GI and upper respiratory infections."[43]

Immune Effects of *L fermentum* in Healthy Adults

Oral intake of *Lactobacillus fermentum* (*L fermentum* Lc40, aka *L fermentum* CECT5716) has been shown to enhance the effects of influenza vaccination. Olivares et al demonstrated a 12% increase in specific antibodies and 37.5% reduction in the incidence of an influenza-like illness.[44] In a randomized, double-blind, placebo-controlled clinical trial (n=50) the immunologic effects of an intramuscular influenza vaccine was assessed in adults. Subjects received either the probiotic (10 billion CFU) or a matching placebo daily for 2 weeks before and after vaccination. Two weeks following vaccination, NK cells had increased in the probiotic group but not in the placebo group. The vaccination stimulated an increase in Th-1 cytokines and in T-helper and T-cytotoxic proportions in both groups; however, some of these increases were significantly higher in the probiotic group. Antibody induction was not observed in the placebo group, whereas a significant increase in antigen-specific IgA was detected in the probiotic group. Incidence of influenza-like illness in the 5 months following vaccination was lower in the active treatment group. The authors concluded that oral administration of *L fermentum* Lc40 enhances the immunologic response of an influenza vaccine, and protects against subsequent infection by increasing the Th-1 response and virus-neutralizing antibodies.[44]

Conclusion

Current interventions for mastitis are ineffective at best and carry many disadvantages, including antibiotic resistance, maternal dysbiosis, loss of maternal-infant bonding, stunted infant immune system, maturation, and other effects. Moreover, there is insufficient evidence to even confirm the effectiveness of antibiotic therapy for the treatment of lactational mastitis,[45] let alone *any* of the common interventions – including breastfeeding education, pharmacological treatments and alternative therapies – in affecting the occurrence of mastitis or breastfeeding exclusivity and duration.[46] The advent of a safe, effective therapy for both lactational mastitis and infant immune health should therefore be a matter of intense interest among obstetricians, lactation consultants, nurses, midwives, and other allied health professionals who provide primary care for breastfeeding mothers.

References available online at ndnr.com



Jeremy Appleton, **ND**, has been a well-known writer and speaker on topics in natural medicine for nearly 20 years. A graduate of the National College of Naturopathic Medicine (NCNM), Dr Appleton is a licensed naturopathic physician, author, educator, and Vice President of Scientific and Regulatory Affairs for SFI USA, which manufactures dietary supplements under the Klaire Labs brand.



Continued from top of page 1

event, episode, or activity of daily living, or whether they are related to a repeated or sustained activity, either work- or leisure-related. What are palliative and aggravating factors? Is there an energetic or psychological overlay involving the upper extremities, specifically the wrist? Most importantly, are the patient's presenting symptoms related to a trauma or a fall?

If the symptoms are a result of a trauma or fall, then the mechanism of injury must be determined. Questions to ask should include: What was the angle of impact? Was the wrist in a neutral position, or flexed or extended, or radial- or ulnar-deviated? The most common position is usually one of extension.

What was the force or height of the fall? Was speed involved in any contact? Or, is it a result of a throwing injury? In addition to a wrist injury, there may also be involvement of the elbow, shoulder, scapula, or chest wall. If the injury involves a fracture, ligament rupture, or nerve damage, it is beyond the scope of this article. The most common wrist fractures are Colles fracture and Smith's fracture of the distal radius. A scaphoid fracture has an inherent risk of avascular necrosis. There may be significant nerve or ligament damage as well. To help with the diagnosis when trauma is involved, imaging is important. A PA (posterior-anterior) view provides information about bony damage, and a lateral view provides information about carpal ligament instability.[2]

The Physical Exam

When conducting your physical examination, it is important to palpate the distal radius and ulna, as well as the 8 carpal bones and metacarpals. The proximal carpal row includes – in a radial to ulnar direction – the scaphoid (navicular), lunate, triquetrum, and pisiform. This row has more independent motion than the distal row, and is therefore is more susceptible to injury. The distal carpal row includes – in a radial to ulnar direction – the trapezium, trapezoid, capitates, and hamate. This row has less independent motion and moves more like a block.

The normal ranges of motion are: Flexion (60-80 degrees), Extension (60-70 degrees), Radial Deviation (20 degrees), and Ulnar Deviation (30 degrees). It is also important to evaluate any swelling, sensitivity to palpation, grip strength, and the presence of a click, snap, crepitus or clunk.[3] To further evaluate the impact of the injury on the patient's life, it is important to ask the patient what is being done differently (demonstrating functional deficiency) to accommodate the pain in their activities of daily living.

In an extension-type injury, there is typically a distal forearm and carpal displacement pattern that can be corrected with manipulation. There are other interventions as well. Prevention – as in mindful activity, awareness in movement, and protective gear – is a good start. A patient may participate in rehabilitative exercises to increase circulation, support healing, maximize movement, and improve function. Stability can be provided through taping, and a compression sleeve or brace may be helpful. To decrease pain, inflammation, and any disability, the modalities of physiotherapy, hydrotherapy, acupuncture, topical or oral medications, and injection therapies (eg, prolotherapy, platelet-rich plasma, or stem cell therapy) can be used along with mind/body interventions if appropriate.

To decrease pain, inflammation, and any disability, the modalities of physiotherapy, hydrotherapy, acupuncture, topical or oral medications, and injection therapies (eg, prolotherapy, platelet-rich plasma, or stem cell therapy) can be used along with mind/body interventions if appropriate.

Treatment

The typical wrist/carpal displacement pattern in an extension injury is that the scaphoid goes posterior and medial, the triquetrum goes posterior and lateral, the lunate goes anterior in extension and posterior in flexion (from a point of perspective in anatomical position), the thumb (trapezium) goes lateral, the radius goes lateral and the ulna goes medial, and the proximal row of carpals goes superior.[4]

The manipulative correction may be performed with the patient supine, seated, or standing, and is done in a protocol pattern of correction.

- **Scaphoid**: There is a tissue pull from the capitate thumb-ward onto the scaphoid, which creates ulnar deviation. Traction and compression are applied while the doctor places the wrist in extension and provides a thrust.
- **Triquetrum**: There is a tissue pull from the capitate thumb-ward onto the triquetrum, which creates radial deviation. Traction and compression are applied while the doctor places the wrist in extension and provides a thrust.
- **Lunate**: The index and middle fingers contact the palmar aspect of the lunate, and the thenar eminences contact the dorsal surface of the lunate. The wrist is placed in flexion so that the palm faces the patient. The doctor tractions the arm so it is straight, and thrusts towards him/herself.
- **Radius/Ulna**: One hand compresses the radius and ulna in the distal forearm while the other hand provides a distractive force to the proximal row of carpals.
- **Proximal row of carpals**: The thenar eminences are placed over the proximal row of carpals and produce a compressive carpal spread over the dorsal surface of the carpals.
- **Thumb (trapezium)**: One hand grabs around the thumb so the doctor's thumb is on the trapezium. The other hand grabs the wrist, and that thumb covers the other thumb. The first hand-contact provides a "can opener" motion while the second hand provides a thrust to the thumb.

In all contacts there is a compression force applied with your hands, thumbs, or fingers. You may initiate contact with a generalized compressive contact/mobilization of the carpals into flexion, extension, radial or ulnar deviation, or circumduction. These movements can be done before the manipulative correction, and may produce articular movement, crepitus, clicking, snapping, or clunking.

During the mobilization and manipulative correction, you are stimulating the mechanoreceptors of the joints (types 1-3), and by this stimulation with controlled motion you are downregulating, or inhibiting, the nociceptors (type 4). This will contribute to pain suppression in the pathways to the spinal cord and brain.[5]

Remember to apply effective patient-centered care by following the naturopathic principles:

- **First do no harm**: With manipulation, do not violate the anatomical boundary
- **Find and treat the cause**: Look at the indicators for wrist dysfunction and pain, and complete a thorough history and physical examination
- **Treat the whole person**: Treat associated asymmetry patterns and other associated joints
- **Doctor as teacher/prevention**: Instruct the patient in proper positioning and posture, including exercise, rest, and diet
- **Stimulate the Vis**: Doing all these things will stimulate the *Vis medicatrix naturae*



Nick Buratovich, **NMD**, is a professor of naturopathic medicine and Department Chair of Physical Medicine at the Southwest College of Naturopathic Medicine and Health Sciences (SCNM) in Tempe, AZ. Dr Buratovich graduated from NCNM in 1983. He is a founding faculty member at SCNM (1993) and also has served as the secretary of the Board of Trustees. He maintains a clinical rotation at the Southwest Naturopathic Medical Center's Pain Relief Center, as well as a private practice in naturopathic family medicine with an emphasis in musculoskeletal disorders and pain management.

REFERENCES

1. Forman TA, Korman SK, Rose NE. A Clinical approach to diagnosing wrist pain. *Am Fam Physician.* 2005;72(9):1753-1758.
2. Goldfarb CA, Yin Y, Gilula LA, et al. Wrist fractures: what the clinician wants to know. *Radiology.* 2001;219(1):11-28.
3. Daniels JM, Zook EG, Lynch JM. Hand and wrist injuries: Part 1. Non-emergent evaluation. *Am Fam Physician.* 2004;69(8):1941-1948.
4. Charrette MN. *Charrette Adjusting Protocols: How I Adjust Common Extremity Subluxation Patterns.* (Self-published); 2002.
5. Dvorak J, Dvorak V. *Manual Medicine.* New York, NY: Thieme Medical Publishers, Inc; 1990: 35-45.

STAFF

Volume 13 Issue 12 | December 2017

Publisher
Razi Ann Berry
publisher@ndnr.com

Founders
Razi Ann Berry
David A. Tallman, DC, ND
publisher@ndnr.com

Medical Editor
Mary James, ND

Associate Medical Editor
David A. Tallman, DC, ND

Contributing Editor, Education
David Schleich, PhD

Contributing Editors, Botanical Medicine
Jillian Stansbury, ND
Robin DiPasquale, ND, RH (AHG)

Contributing Editor, Homeopathy
Joseph Kellerstein, DC, ND

Contributing Editor, Oncology
Jacob Schor, ND, FABNO

Contributing Editor, Nature Cure
Sussanna Czeranko, ND

Contributing Editor, Functional Medicine
Mark Swanson, ND

Editorial Coordinator
Vanessa Wiley
editor@ndnr.com

Director of Sales and Marketing
Matthew Knapp
ads@ndnr.com

Circulation Manager
Tara Hall
circulation@ndnr.com

Creative Direction
Jaclyn Threadgill
jaclyn@ndnr.com
www.jthreadgill.com

Foreign Correspondent
S.A. Decker Weiss, NMD, FASA

ND News & Review
PO BOX 2968
Scottsdale, AZ 85252-2968
888.627.8677 | 480.275.7712
www.ndnr.com
ISSN 2169-1614

Our printer utilizes wind-power

PRINTED WITH SOY INK

Naturopathic Doctor News & Review

Copyright © 2016 *Naturopathic Doctor News & Review.* All rights reserved. No portion of this publication may be copied, reproduced, or redistributed without express written permission from the publisher. Reprint information is available by contacting publisher@ndnr.com. *Naturopathic Doctor News & Review* reserves the right to edit or reject any submitted editorial or advertising. Opinions expressed by contributors and advertisers are not necessarily the opinions of *Naturopathic Doctor News & Review* or its principals.

Naturopathic Doctor News & Review is published and circulated as a complementary annual subscription (12 issues) to licensed naturopathic doctors (NDs) and students and graduates of CNME recognized naturopathic colleges in North America, and certain suppliers to the profession.

Annual subscriptions (12 issues) are available to other healthcare providers and NDs outside of North America: US $99; Canada & Mexico $129USD; Europe and Overseas $179USD.

Article Submissions

Articles should be original, previously unpublished, and should cover a specific topic, protocol, modality, diagnostic, philosophy, commentary, or case study pertaining to naturopathic medicine rather than a general overview. Illustrations, photographs, charts and protocols are encouraged. *Naturopathic Doctor News & Review* does not reprint articles from other publications except under unusual circumstances. Typical word requirements are 700 to 2000 words per article. Topics of interest include:

- Clinical pearls
- Case management/case studies
- Naturopathic philosophy
- Practice building and business management
- Current trends and issues that affect naturopathic physicians in your area
- News, announcements, and event notices
- Development of new techniques or protocols
- Abstracts and reviews
- Discussions pertaining to diagnostics
- Public/media relations and networking
- Using technology to make practices more efficient and profitable
- Educational and grassroots programs that further the naturopathic cause
- Any other trend, event, or development you believe is pertinent to the profession

For more information regarding article submission, or to receive a copy of submission guidelines, please contact editor@ndnr.com. Opinions expressed in *NDNR* do not necessarily reflect those of this publication and its publishers.

Association Spotlight

PsychANP

KABRAN CHAPEK, ND

It has been 1 year since founding members from across the United States and Canada incorporated the Psychiatric Association of Naturopathic Physicians (PsychANP) as an affiliate of the American Association of Naturopathic Physicians (AANP). What is our raison d'etre in a generalist profession?

Why the PsychANP Was Formed

A naturopathic team – sparked by Carlo Calabrese, ND, MPH, one of our board members – published a research paper in 2011 suggesting that psychological disorders may be more frequent in naturopathic practice than in conventional care.[1] Why would this be? Maybe it's because we are known as "doctors who listen," or because patients may know that naturopathic physicians have treatment options other than the perhaps-overused psychopharmaceuticals. The National Institute of Mental Health (NIMH) estimated that in 2015 as many as 18% of US adults experienced a mental illness (4% of them a serious mental illness), yet only about half received treatment.[2] In addition to frank mental health complaints, Dr Paul Anderson, at a recent AANP convention, said of his patients, "In complicated and chronic disease patients, what you are dealing with 70% of the time is their mental health."

Do we naturopathic doctors feel adequately equipped to help patients in significant psychological distress? I didn't when I graduated from Bastyr. My son was born the same day I received my board exam results. That was a day I will never forget, but it also ignited a sense of urgency to provide for our family. I found one of the rare jobs for naturopathic doctors that was actually salaried at a local dual diagnosis treatment center north of Seattle, and began work there. I quickly realized that this was "on the job" training in mental health, and the learning curve was steep, as many patients had recently been in the hospital for suicide attempts or had just come out of detox for alcohol dependence. As part of a team, I was able to gain extensive on-the-job training working with experienced therapists and psychiatrists over the course of 6 years.

To address the apparent need, the PsychANP founders envisioned an evolving practice of care with interprofessional exchange in psychiatry, behavioral medicine, and psychology to refine a mental health practice informed by naturopathic principles. While our ultimate vision is to provide effective, efficient, compassionate mental healthcare for all, our efforts are focused on helping naturopathic doctors specifically gain the tools and skills they need to contribute to that task while integrating emergent information. Accordingly, the PsychANP mission is:

1. To lead in developing naturopathic psychiatry education and practice, including residencies and continuing education consistent with the evolving standards of naturopathic psychiatry
2. To integrate clinical practice and research that comprise the emerging field of naturopathic psychiatry
3. To define the principles of care and advocate for appropriate scope of practice as it relates to naturopathic psychiatry
4. To provide a definitive resource of information regarding naturopathic psychiatry for the collaborative health care community

Building Educational Opportunities

In the development of education in naturopathic psychiatry, we encourage schools, clinics, and hospitals to create more mental health-focused residencies for naturopathic doctors. The same facility where I had my initiation in mental healthcare as a new ND, now has a formalized residency program through Bastyr – a prime opportunity for those wishing to specialize in mental health. Several treatment centers and small clinics have sprung up to offer mental health residencies, and we hope to double the number of residencies currently available for naturopathic doctors.

The PsychANP provides educational opportunities to naturopathic doctors in active practice in order to gain skills in handling mental health concerns. For example, PsychANP sponsored a webinar on patient crisis management by Dr Karen Lamb, who is both a naturopathic doctor and a marriage and family therapist. An upcoming webinar will discuss the management and tapering of psychiatric medications (see psychanp.org for information).

We queried members on what types of engagement would be most helpful (in addition to conferences and webinars), and they responded that they would like more intimate small-group discussions. Study groups among members then met online to address treatment strategies and clinical experiences. Drs Tara Peyman and Stephan Ducat also started a one-on-one mentorship program (with a small fee to members) for those would like additional support in mental health work.

PsychANP's first annual conference this year was undertaken in conjunction with the AANP convention. As our chair of the Professional Development Committee, Dr Peyman was key in helping the conference come together with the board and volunteers. Dr Peter Bongiorno, a PsychANP Board member and a national leader in the field of mental health and natural medicine, was the keynote speaker. Dr Eric Vose moderated a panel which displayed diversity and commonalities in naturopathic mental health practice. Next year's PsychANP conference will be in conjunction with the California Naturopathic Doctors Association (CNDA). For our next conference in April 2018, on "Integrative Psychiatry and Neuro-Immunology," we have teamed with CNDA.

These initiatives have been undertaken with the assistance of a remarkable, multi-talented group within the naturopathic profession. Dr Jennifer Bahr, president of CNDA, has been a key player in getting our organization off the ground, aiding in the creation of our mission and vision, and fundamental structure, and leading professional development efforts. Moira Fitzpatrick, PhD, ND (one of the standout speakers at our last conference), with long practice as a psychologist and naturopathic doctor, has been developing a residency at her group practice. Dr Erik Vose (our Board Secretary with a background in Somatic Experiencing), has proven to be a technological whiz while leading the development of our website (http://www.psychanp.org/) and logo. He also did an excellent job as the moderator of the panel discussion at our recent conference. Gary Piscopo, ND, LAc, is our Facebook expert (https://www.facebook.com/psychanp/). Dr Carlo Calabrese works with a committee to help define clinical competencies on which training and board certification can be based.

The National Institute of Mental Health (NIMH) estimated that in 2015 as many as 18% of US adults experienced a mental illness (4% of them a serious mental illness), yet only about half received treatment.

Goals

We hope to reach our goals of doubling residencies and establishing practitioner certification within the next 3 years. On a longer timescale, we are gathering the strands and waves of information that formed the history and current practice of natural medicine in psychiatric care, and are beginning to articulate a state-of-the-art on which we can build. Stephan Ducat, ND, PhD, has drafted a vision for a textbook of naturopathic psychiatry that maps many of the potential contributions of naturopathic practice to psychiatric care. Katherine Raymer, MD, ND, is attending to relevant curriculum development. We welcome and will need your contributions to this emerging map of naturopathic psychiatry.

From the naturopathic community, there has been a warm reception of PsychANP and its goals. Some naturopathic doctors consider "psychiatric" and "psychiatry" to be too pathologically or pharmaceutically oriented. There have been questions at times about naturopathic doctors specializing at all. Resistance may also come from allopathic psychiatrists who regard "psychiatry" as a proprietary domain. The term encompasses addressing both the biological and psychological causes and treatment of psychological distress. Naturopathic psychiatry, ideally practiced, has a holistic-systems perspective of body, mind, and spirit. We do psychiatry differently. Though there may be some contention around boundaries, that doesn't make the cause of improving practice and building a competent workforce in naturopathic mental healthcare incorrect or ill-advised. Other naturopathic specialty groups, such as Pediatric ANP and Oncology ANP, faced similar questions at their inception, yet now have certification and residencies. This has helped to improve practice and help patients find naturopathic doctors with additional interest and training in their specialties. Working at the Amen Clinics, I have experienced strong support from my psychiatrist colleagues for what we are doing, as well as support from mental health providers across the country in addressing the workforce shortage and restricted options in mental health care.

Like any new organization, we have an abundance of freedom at this point, with the least amount of bureaucracy; however, we also have limited work hours from our mostly-volunteer workforce. If you have an interest in joining our PsychANP and/or to volunteer on any of our projects, please contact me or go to our website: www.psychanp.org.

Much gratitude and thanks to Dr Carlo Calabrese for his assistance with this article.

REFERENCES

1. Chamberlin SR, Oberg E, Hanes DA, Calabrese C. Naturopathic practice at North American academic institutions: description of 300,483 visits and comparison to conventional primary care. *Integr Med Insights*. 2014;9:7-15.
2. National Institute of Mental Health. What is prevalence? NIMH Web site. https://www.nimh.nih.gov/health/statistics/prevalence/index.shtml. Accessed August 15, 2017.

Breathe better.
Live better.



XLEAR PROACTIVE HEALTH

It's all about breathing. Doctor-recommended Xlear® Saline Nasal Spray with xylitol doesn't just alleviate congestion and dryness due to colds, flu, and allergies, it's proven to open your airways better than saline alone to help you breathe easier. For free samples go to xlear.com/morethansaline

xlear.com #imXlear

Supercenter · RITE AID PHARMACY · CVS pharmacy · WHOLE FOODS MARKET · Publix. · GNC LIVE WELL · ShopRite · meijer · SPROUTS FARMERS MARKET · Kroger · ingles · H-E-B · theVitamin Shoppe · Harris Teeter Neighborhood Food & Pharmacy · DISCOUNT drug mart FOOD FAIR · Hannaford · Kinney DRUGS · THRIFTY WHITE PHARMACY

NSCLC & Naturopathic Oncology

Maximizing Outcomes Using KNOWoncology.org – Part 2

JEN GREEN, ND, FABNO
DUGALD SEELY, ND, MSC, FABNO
HEATHER WRIGHT, ND, FABNO

When working with cancer patients, naturopathic doctors combine current best evidence, clinical experience, and patient preferences to select natural therapies and lifestyle goals that support outcomes in integrative care. In this way, standard-of-care treatment for cancer is enhanced and patients are treated individually. Utilizing the research tool, KNOWoncology.org, relevant human clinical trials, supportive literature, and clinical pearls can be quickly accessed to help formulate patient treatment protocols. In Part 1, we introduced KNOWoncology.org and showed how to use the clinical tool to find relevant studies in a given area such as lung cancer.

We now present 2 cases of patients with Non-Small Cell Lung Cancer (NSCLC). The cases demonstrate the application of KNOW in clinical practice as well as outcomes via use of naturopathic medicine in integrative care.

Case 1

EA is a 59-year-old male who never smoked. His first consultation for naturopathic care was in February 2016. In November 2015, he reported having an episode of bronchitis with fever, night sweats, and weight loss. He was treated with antibiotics by his internist, and subsequently developed a left leg clot (cancer is a hypercoagulable state). In December 2015, EA was diagnosed with stage IV NSCLC, including multiple, unresectable lung nodules and metastasis to the adrenal gland and bones. He began chemotherapy with carboplatin (platinum chemotherapy) and pemetrexed (anti-folate metabolite). He was switched from heparin to warfarin, and then to enoxaparin sodium to manage his leg clot. He took no other medications except for odansetron for chemotherapy-induced nausea.

As stated in Part 1, the goals of a naturopathic oncology treatment plan include: maintaining weight, improving quality of life, and minimizing dose-limiting side effects (ie, the side effect that require oncologists to reduce or delay treatment). Major goals include improved patient tolerance of treatment and improved survivorship. Dose-limiting side effects in lung cancer can include mucositis, esophagitis, peripheral neuropathy, and bone marrow suppression.

Feb 2016 – May 2016

EA's enthusiastic and supportive wife wanted to do every therapy she found on "The Truth About Cancer" series and "cancertutor.com," both of which are unreliable sources of information for cancer patients. Over a series of visits, EA struggled with nausea, anxiety, low appetite, and weight loss from carboplatinum/pemetrexed combination chemotherapy, symptoms that were mitigated by naturopathic medicine. Interestingly, he also developed a 1-day fever after one of his mistletoe injections, which thankfully did not occur during his nadir (the lowest point that an individual's blood cell count will reach as a side effect of chemotherapy or radiation). The following naturopathic recommendations were made in order of priority:

1. Melatonin: 20 mg at bedtime in a formula including magnesium glycinate (200 mg) to support its repletion (Mg can be depleted by platinum chemotherapy[1])
2. Vitamin D3: 10 000 IU/day for 3 weeks to correct vitamin D deficiency, followed by 5000 IU/day as maintenance[2]
3. Fish oil: 1500 mg EPA/750 mg DHA daily in liquid or capsules
4. *Astragalus* & *Ligustrum* formula: 3 tabs twice daily, which was changed to Ji Xue formula when his tongue became damp and blood counts dropped
5. Cannabis oil nightly to support sleep, with drop-dosing of THC/CBD as needed for nausea during the day
6. *Boswellia*: 500 mg 3 times/day (anti-inflammatory for the lungs) to replace cilantro, *Echinacea*, and 9-10 other self-prescribed herbs
7. Curcumin phytosomal: 500 mg, 2 capsules twice daily[5]
8. Probiotics: 1 cap/day[6]
9. Mistletoe extract injections, switching products at one point, due to US availability
10. (As needed): Wheatgrass juice for low RBCs, homeopathic Nux vomica 30C for nausea/anxiety; a Mg-based laxative formula for constipation due to odansetron; vegetarian organic protein drinks to replace standard liquid nutrition; and therapeutic smoothies: 1 scoop whey protein; fat source such as avocado, cashew or almond butter, coconut milk or coconut cream (good source of medium-chain triglycerides); organic spinach; organic frozen raspberries/blueberries, pineapple or other fruit).
11. Organic soy[7] and vegetable soup in daily diet. In a small, controlled trial, daily consumption of vegetable soup increased the median survival time of people with advanced lung cancer by over a year![8]
12. Recommended to discontinue: Cesium chloride,[9] daily oral oregano oil

May 2016 – May 2017

EA's constipation and anxiety improved over the subsequent year. After 4 months of the carboplatinum/pemetrexed treatment along with supplements and dietary support, EA developed elevated liver enzymes, mild weight loss, and very low WBC; however, his main tumors had shrunk from 8.5 x 6.3 cm to 7.1 x 4.4 cm, and from 53.33 to 31.24 cm. Carboplatinum was discontinued, but he has remained on pemetrexed every 3-4 weeks as maintenance chemotherapy.

A February 2017 nutritional blood and urine analysis suggested need for alpha lipoic acid, Mg, folic acid, and vitamins B2 and B12. He also had low creatinine/protein, high cadmium blood levels (from soldering work), high urine lipid peroxides (indicating oxidative stress), and stool markers suggesting intestinal yeast overgrowth.

Additions to supportive care included the following:

1. *Silymarin* (milk thistle) for elevated liver enzymes and possible prevention of brain metastasis[10]
2. *Cordyceps* daily to replace Chinese herbal combinations, and for adrenals
3. B complex to support B12/folate. Note: In general, we hesitate to upregulate methylation in patients with existing tumor burden because it is not known whether this helps or harms tumor progression. However, pemetrexed is an anti-folate metabolite, and we had just learned from a 2017 study that low pretreatment RBC total folate was associated with an inferior response to pemetrexed-based chemotherapy in stage IV NSCLC.[11]
4. Reduce vitamin D3 to 2500 IU/day, as serum level was 75 ng/mL (187 nmol/L)
5. Increase intake of protein, including fish, organic eggs, nuts, seeds
6. Resistance exercise to maintain muscle mass
7. Berberine: 500 mg twice daily for 1 month for intestinal yeast. Because of concerns about berberine drug interactions with chemotherapy, only short-term use was recommended.
8. Alpha lipoic acid: 600 mg starting 4 days after pemetrexed and stopping 2 days before subsequent chemotherapy, to avoid possible interactions (pemetrexed's half-life is 3.5 hours)

Current Day

EA's disease remains stable according to a CT scan in May 2017. Pemetrexed is extremely well tolerated now, with only occasional liver enzyme elevation. His weight and WBCs are stable, and he has experienced no nausea or appetite loss. EA's oncologist is surprised at his tolerance of long-term chemotherapy and his ongoing response to it. It is impossible to know how much of EA's stability is from chemotherapy versus naturopathic therapy, but his case illustrates how naturopathic oncology can reduce side effects from cytotoxic chemotherapy and optimize outcomes. Consulting with a naturopathic doctor helped redirect EA away from a large list of self-prescribed natural agents of unknown efficacy, toward more tailored, evidence-informed interventions.

Case 2

FD is a 45-year-old male who never smoked and was diagnosed with stage IV lung cancer in September 2014; he had 16 small brain tumors and lytic lesions throughout his spine. His tumors were both ALK- and EGFR-positive, which made him eligible for more than 1 targeted

TAKE Sugar DOWN!

Our newly formulated BioGymnema has been enforced with more bitter melon to support healthy blood sugar levels*.

Benefits
- Supports healthy blood glucose levels*
- Promotes pancreatic health*
- Helps to maintain insulin levels already within a normal range*
- Supports a healthy metabolism*



ayush.com | 800.925.1371 | customerservice@ayush.com

*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.

FREE OSTINOL™ STAT+PAK

for your patients

with EVERY BOTTLE OF OSTINOL™ ADVANCED ORDERED*



A POWERFUL, FAST ACTING BOOSTER KIT FOR RAPID JOINT SUPPORT

Ostinol™ Stat Pak contains 5 days (15 capsules) of extreme joint support

• Rapid clinical joint improvement • Works on 5 pathways of inflammation

• No limits, while supplies last

Available *Exclusively* from

ZyCal Bioceuticals Healthcare Co.

Leaders in Natural Bio-Active Proteins

www.ZyCalBio.com • 888.779.9225

natural partners™

Order today at **www.naturalpartners.com** or call **888.633.7620**

www.ZyCalBio.com • 888.779.9225

*Offer valid only on Ostinol™ Advanced 300mg, 450mg and 5X

chemotherapy agent. He was given erlotinib – a tyrosine kinase inhibitor that targets EGFR mutations. At the time of consult he was also taking acetaminophen plus hydrocodone and using a fentanyl patch for pain management. His pain manifested as deep bone pain that made him chilly and his teeth chatter. He was constipated from the pain meds and nauseated from slight smells. FD received 10 treatments of whole-brain radiation and palliative radiation to his spine for pain control. He began 150 mg of daily erlotinib, though this dose was reduced to 100 mg due to elevated bilirubin.

Musings on Curcumin

The use of curcumin alongside erlotinib is controversial. In 2014 we believed curcumin should not be used with erlotinib because it is a potential CYP3A4 inducer that could decrease circulating drug levels. This belief was based on a pre-clinical study in rats.[12] However, opinions changed in 2016 based on 3 newer studies. The first was a randomized, placebo-controlled, crossover trial in which piperine-enhanced curcuminoids produced no meaningful changes in plasma Cmax, AUC, clearance, elimination half-life, or metabolite levels of the drug probes midazolam, flurbiprofen, or acetaminophen, all of which are metabolized by CYP3A, CYP2C9, and acetaminophen conjugation enzymes.[13] As well, both an in-vitro study[14] and mouse study[15] showed that curcumin enhanced erlotinib's anti-tumor activity. For this reason, curcumin was not recommended for FD initially; however, since his recurrence in 2016 he has been encouraged to take it.

Initial Naturopathic Plan, Dec 2014:

FD's initial recommendations included the following:

1. Melatonin: 20 mg nightly
2. Homeopathic Symphytum 30C and Nux vomica 30C: 2 pellets of each dissolved in mouth 1-3 times daily as needed for pain, nausea, and constipation (note the frequent dosing)
3. Vitamin D3: 4000 IU daily
4. Hemp-derived CBD oral spray for pain
5. Indirect vs direct bilirubin testing and thyroid panel were ordered
6. Unflavored prescription medical weight loss/cachexia liquid nutrition formula, vegetarian organic liquid nutrition beverage, and therapeutic smoothies
7. Referral to oncology psychologist; guided imagery and journaling
8. If rash appears, colloidal oatmeal bath with topical vitamin K3 cream (Note: this was never needed)
9. Possible addition of intravenous vitamin C after first CT scan

December 2014 – June 2016

FD had reduced pain, nausea, and constipation using homeopathic treatment and CBD. He slowly reduced his fentanyl patch and his weight stabilized. The lab tests revealed Gilbert's syndrome – a useful discovery. As a result, FD was advised to avoid fasting, avoid acetaminophen, and to add in S-adenosylmethionine (SAMe) at 400 mg, 2 twice daily, if bilirubin spiked and there was a threat of reducing the effective erlotinib dose. An MRI in February 2015 showed complete remission of brain and lung lesions. Zoledronic acid infusions were added to his conventional plan to prevent pathological bone fractures. FD was stable with no evidence of disease for 18 months. During this time, his fatigue from erlotinib treatment and disease processes resolved and his only side effects were ingrown hairs and ingrown toenails that required minor surgery. In June 2016, FD's cancer recurred with a skeletal metastasis in the left clavicle (according to PET scan), and he joined a clinical trial in which he received dose-dense radiation to the rib alongside erlotinib.

Naturopathic adjuncts for radiation/erlotinib included the following:

1. Continue fish oil, melatonin, vitamin D3, and probiotics
2. Curcumin phytosome: 500 mg, 3 caps per day with food
3. *Astragalus*: 500 mg, 2 caps/day
4. Water-based relief gel for radiation burn prevention, to be applied twice daily during radiation and afterwards for a few days until skin is recovered
5. Ground flaxseeds: 2 tbsp/day during radiation (this was based on mouse studies,[16,17] but flaxseed is an excellent fiber/protein and not likely to be harmful)
6. Vitamin E (mixed tocopherols and tocotrienols): 400 IU, 2 caps *after* radiation for 3 months, to prevent radiation fibrosis[18,19]

Current Day

As of July 2017, FD continues to respond to erlotinib alongside naturopathic interventions. His case illustrates how our decisions can change according to current best evidence. At each point we must weigh potential risks and benefits of natural agents. Cancer management is complex, and accessing current best evidence is vital in decision-making.

References available online at ndnr.com



Jen Green, **ND**, **FABNO**, graduated from CCNM in 2000. In 2008, she founded the Naturopathic Department at Beaumont Hospitals, and was the department head for 5 years. Dr Green has served on various naturopathic boards, including the OAND, CAND, MANP, and the Oncology Association of Naturopathic Physicians. She is currently one of the research directors of KNOW, the Knowledge in Naturopathic Oncology Website. Jen is currently in private practice at Emcura Integrative in Bloomfield Hills, Michigan.



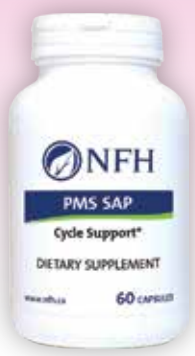
Dugald Seely, **ND**, **MSc**, **FABNO**, is a naturopathic doctor, researcher, and administrator who has actively contributed since graduating from CCNM in 2003. Dr Seely serves as the executive director of Research & Clinical Epidemiology at CCNM. He is also the founder and executive director of the Ottawa Integrative Cancer Centre, a Fellow of the American Board of Naturopathic Oncology, and an executive board member for the Oncology Association of Naturopathic Physicians. Dr Seely is a section editor for Integrative Oncology in the journal *Current Oncology*, has published over 60 peer-reviewed papers, and frequently presents at medical conferences around the world.



Heather Wright, **ND**, **FABNO**, is a naturopathic doctor with 12 years of experience working within hospital-based integrative oncology teams. Dr Wright has specialized in the integrative treatment of pancreatic cancer and has co-authored clinical trials to assess the benefit of natural approaches in this population. She is also a regular contributor to the *Natural Medicine Journal* and as a speaker provides continuing education to colleagues. She is President of the Oncology Association of Naturopathic Physicians (OncANP.org) and serves as Research Director for KNOWoncology.org, a searchable database of human clinical trials in integrative oncology. Dr Wright currently works at Goodapplewellness.com.

NFH
Nutritional Fundamentals for Health Inc.

Focus on Women's Health



PMS SAP™ is a synergistic blend of chasteberry, *Ginkgo biloba*, and vitamin B_6, formulated to help regulate menstrual-cycle concerns.*

- Relieves symptoms associated with premenstrual syndrome (PMS)*
- Normalizes elevated prolactin secretion*
- Used as a hormone normalizer to help stabilize menstrual-cycle irregularities*
- Relieves symptoms associated with menopause such as hot flashes, memory, and learning decline*
- Increases a shortened luteal phase and improves progesterone levels*

Menopause SAP™ contains a combination of four evidence-based standardized herbal extracts—black cohosh, maca, St. John's wort, and rhapontic rhubarb—formulated to help in the management of menopause-related symptoms and profoundly improve pre-, peri-, and postmenopausal quality of life.*

- Reduces the severity of hot flashes and night sweats*
- Maintains mood balance*
- Enhances sleep quality*
- Improves vaginal dryness and sexual dysfunction*





All ingredients listed for these product lot numbers have been validated by a third-party ISO 1702–accredited laboratory for identity, potency, and purity.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

Our products are available through these distributors. Please contact them about availability.

np script natural partners and emerson ECOLOGICS delivering to improve health™ www.emersonecologics.com | 800.654.4432 emerson Quality Program GOLD

Anthroposophic Naturopathy

From Half Science to Whole Science

ROBERT KELLUM, ND, PHD, LAC, LMT

To fully understand Anthroposophic Naturopathy today, we need to be clear about what naturopathic medicine is, *and* how anthroposophy can help it to *evolve*. Ie, we need to be clear about what path it offers naturopathic medicine and all medicine, for that matter, to move forward toward the higher, *integrative* ground we all need and which can't be defined by any one discipline without succumbing to that discipline's limitations.

To get to that higher ground – where east and west, science and "religion," holism and reductionism, nature and laboratory, spirituality and materialism – find common and *practical* bridges, we can't be dependent upon naturopathic or any other one medicine to get there. Something more is needed that is open to all, yet outside of them, as a "friendly adversary," keeping a door of greater possibility open within *and* between them. Anthroposophy has shown itself uniquely capable of offering this key. The struggle for this is what makes *every* individual group within the Association of Anthroposophic Medicine and Therapies in America (AAMTA)'s "umbrella" of professions *different* than those same professions *without* anthroposophic enhancement.

Science's Necessary First Half: Descending Deeper into Matter

Today, allopathic medicine still occupies the prevailing cultural paradigm in our society. While more MDs/DOs are fortunately beginning to question this, it *still* controls the medical schools, technology, organization of research and knowledge, and how medicine is marketed and practiced. Within this paradigm, creation of knowledge follows a path that mirrors the death process, in the analytical destruction of matter, to find what is felt to be the locus of truth. So, for example, to understand human physiology, western science looks into organ systems within the human being, looks at specific organs, looks histologically at tissues within an organ, looks at cells within tissues and how they interact, and looks at specific molecular activity that comprises this interaction, right down to the workings of DNA. From this path of knowledge, medications are created and genes are manipulated in the name of health.

All of this is very important and should be researched and studied as thoroughly as possible, but it is only *half* of the scientific process. It is essentially an initiation process that ends in death, without any grasp of "the turning point," in which life, and healing, *continually* rises up again. For the other half – the study and research of how we rise up from the descent into death and into life and healing – western science has no perceptual or conceptual frame of understanding. It unknowingly relies upon this other half to silently heal the destructive process; however, without its full development into consciousness, we are ultimately doomed to medicine that is palliative at best.

The Vital But Overlooked Second Half: Rising Up into Life & Renewal

We don't leave science to develop this other half, but we do enter into a different scientific domain – the quantum world of warmth and light and sound, where things are more difficult to measure. Moving from warmth, into light, and then sound, reverses the step-down process into matter and provides the path for ascending out of it in renewal. In the gaseous atmosphere of the blood and body tissue cells, warmth ignites a light process (as in ATP) that in turn stimulates chemical activity in the tissue fluids, where solution shifts to gel, to tissue, and back again, dissembling and re-assembling genetic expression, cellular architecture, and connective tissue in different forms through tone, which manifests in ongoing physiological and physical changes. Thus, we have the capability to come back up from gene to cell to tissue to being, in a living process of renewal and healing.

It is through warmth, light, and sound that diet, environment, social stress, etc, all work synergistically to modulate gene expression. Under a toxic load, daily mutations, as genomic "stress fractures" – to be repaired in order to maintain cellular integrity – can increase 10-fold or more, until cells lose the capacity for self-regulation, and genes express maladaptive forms, as in cancer.[1] Genetic expression, however, is also shaped by the greater coherence and higher harmonics of a healthier lifestyle and environment. Cellular expression of mutation is then also a *global* bodily event – reflecting an ever-shifting cytoskeletal struggle, a yoga, to embody the most energetic architecture for *adaptive* gene expression – of which we, as spiritual beings, are the co-architects. (Check out, for example, the research by



Denninger et al on the effect of yoga and other mind-body interventions on genetic expression,[2] the work of Globus et al,[3] and the writings of Dawson Church (among others) on the connective tissue system as a "quantum resonator."[4]

Accepting that genetic defects are an ongoing occurrence while also overlooking the fact that we have the power to surmount deleterious effects through achieving a greater wholeness of being, is a self-fulfilling outlook that presumes a rigid, monolithic human biology and which leads us to focus upon alleviating *symptoms* through medications, surgery, genetic engineering, transplants, and mechanical replacement of human functioning. Underlying this is a belief in bravely moving toward a kind of physical immortality by engaging in "war" upon this inflexible body – overcoming biology's/nature's limitations and affronts (aka evolutionary challenges) through pesticides, excessive antibiotics and vaccinations, irradiation, chemotherapy, immune suppression, sterile environments, etc – all toward the goal of constructing a new biology-nature interface, in which a body that is incapable of self-regulation can survive. This approach has brought amazing medical advancements that ease suffering, offering validity to the paradigm. No one denies the value of medical technologies that restore vision, hearing, use of limbs, organ function, etc. Unfortunately, this 1-sided outlook has also *contributed* to a devitalization that threatens to enslave us.

Price and Pottenger have convincingly demonstrated how devitalized diets quickly impact physiology *and* anatomy across generations. As a result of depleted diets and soils, as well as the factors listed above that, from a larger sociocultural health paradigm, attack/expropriate the body, we face today increasingly debilitated architecture and functioning as a biological reality. Clearly, there are historical examples where, by subjection or circumstance, groups of people have been led into illness by conditions that in the past had also served them, eg, descendants of salt-retaining Africans that survived slave ships, now suffering hypertension. But never in recorded history has there been such mass-based, scientific deconstruction of human beings, dictated from the supremacy of a rational, ego-based self over the body. In this "mirage of health," we become increasingly marginalized from ourselves and nature. We become less mobile (eg, in cars), more contained in our heads (eg, on cell phones and computers), more depleted in our energy, more sclerotic in our tissues, and more cold in our beings. (See the revision of Wunderlich's findings that the average human temperature 150 years ago was 98.6 °F.)[5]

We are growing "old" before our time; we are not carrying the same levels of energy within us, with which to create ourselves, that we carried just 50 years ago. Autism levels rise as the ego/spirit finds it increasingly difficult to enter the body. Autoimmune conditions rise as we try to mount warmth to bring ego/spirit into bodies not prepared to receive it. We see more "functional illness," ie, impaired functioning yet normal labs; more metabolic disorders, ie, disturbed energy processes like diabetes or cancer in which the true self is displaced by culturally fed "doubles," thereby preventing full immersion in our bodies. We praise the discovery of the gene "responsible" for hypertrophic cardiomyopathy as we continue to sustain conditions that will cause more occurrences of this disease. We keep increasing the vaccination load (now 72 within the first 18 years) *and* adjuvants within them (eg, now 13 425 µg of aluminum in those 72 shots; 250 µg, alone, are in the hepatitis B shot at birth, while the FDA lists "safe" daily levels for IV drips and injectables at 25 µg) as we create increasing susceptibility to disease (and thus the need for more "booster shots") including "dangerous" diseases such as measles, which were commonplace, even welcomed, 50 years ago. We spend billions to find a "cure for cancer" (eg, Phil Knight's recent $500 million donation for the OHSU "Knight Center") so as to detect and attack cancer earlier. And we develop genetically engineered drugs – such as monoclonal antibodies, to help better target and increase the potency of chemotherapy – while continuing to deplete the individual's life energy and warmth, denying them a greater autonomous and balanced immune capacity for self-healing.

Moving Forward into Wholeness: A Revolutionary Paradigm Shift

Healing today becomes a dangerous act against culture, and a journey from which we can never fully recover. The physical bodies of all of us are not being developed to carry the self. This is very different ground for understanding healing. There is no room for a preventative smugness, because at an important level none of us can avoid illness today. Increasingly, we confront illness as a "normal" condition of being in a physical body. Addressing it at a soul level is our only doorway to evolve.

Breaking things down – finding the pathway, the mechanism, within an abstracted part that is separated out from the whole – removes us from the complexity of life. It is a place where we can have authoritative exactitude and predictability in the name of science, but such "half science" is not enough. In the other half – the holistic realm of supporting the complexity of life – there is less certainty as to how any one thing is responsible for healing. A more integrative and *dynamic* physiology is needed to take into better account the interaction between different biological systems. A patient's will forces, ie, their "drive" and initiative for life, must be assessed and engaged. Whatever soul work the patient has to do needs to be revealed and supported. Tools to enact these processes will often be energy-based medicines and therapies that are foreign to western science, and must often be regularly fine-tuned differently for each individual, evolving and changing over time. In many respects, this kind of healing is more work for doctors, and can also be more work, as well as a "dangerous" activity, for patients. It potentially changes people's lives and relationships, and some people might rather take a pill and leave such potential hornets' nests of life alone. People must have freedom to do that, but this is *not* a rationale against the necessity of still developing a *whole* medical science.

This is where naturopathic medicine has much to offer. Like MDs/DOs, naturopathic physicians are well schooled in conventional medicine, with formulary privileges and responsibilities. Yet they also have a history of listening to their patients, of being spiritually oriented, of emphasizing a moral life, and of having a longstanding belief in humanity's innate healing potential – what naturopathic physicians for over 100 years have called the "vital force." In the best naturopathic tradition, homeopathy, herbs, hydrotherapy, nutrition, bodywork, counseling, and other gentle modalities combine to stimulate this force and promote healing. From the perspective of anthroposophy, naturopathic medicine is *not* an "alternative medicine"; rather, it is an important part of existing medicine that must be recognized and further enhanced. You wouldn't go to a naturopathic physician for major surgery, and we have no real "hospitals" of our own to speak of yet; however, we have major roles to play in helping to shape how these and other "jewels" of western medicine can best be "set."

We *believe* in the power of western medicine. We just also believe that the necessary descent into it has to be balanced by a process of rising out of it and redeeming it in order to find ourselves. In an act of "medical midwifery," anthroposophic naturopathy seeks to enhance naturopathic medicine by raising it above a focus on "nature" as some kind of reified fetish, and above "the "naturalism" inherited from Hippocrates that has fueled rationalism, to a higher holographic ground where we are here to *create* nature, and divinity is *necessarily* nested within science itself.

References available online at ndnr.com

SPAN

The Society for Physicians of Anthroposophic Naturopathy (SPAN) was founded in 2012. Its aims are to:

- Bring **awareness** of the anthroposophic approach and methods to naturopathic physicians
- Enliven and enrich the **philosophy** and **practice** of naturopathic medicine
- Encourage the **cultivation** of the personal and professional awareness of anthroposophical method through further **education**
- Board-**certify** naturopathic physicians in Anthroposophic Naturopathy
- Create **interaction and exchange** of knowledge between anthroposophic naturopathic physicians and other health practitioners
- **Connect** members of the pubic with anthroposophic naturopathic doctors

Website for SPAN:
https://span.wildapricot.org/





Robert Kellum, **ND**, **PhD**, **LAc**, **LMT**, is a board-licensed naturopathic physician and practitioner of Classical Chinese Medicine. He has also been a licensed body worker for over 25 years and holds advanced degrees/training in sociology, anthropology, and psychology. A board-certified IPMT graduate of Anthroposophic Medicine, in 2012 Bob co-spearheaded the development of the Society for Physicians of Anthroposophic Naturopathy (SPAN). Part of an umbrella group of practitioners within AAMTA, SPAN offers a 5-year naturopathic training for certification in Anthroposophic Naturopathic Medicine. Bob currently sees patients in Portland, OR. For more information, contact Bob directly at healthbridge@integra.net. For more on SPAN, visit: https://span.wildapricot.org, also http://www.aamta.org.

A Case Study in Osteoporosis

The Osteoinductive Activity of Cyplexinol

JAQUEL PATTERSON, ND

Osteoporosis, one of the most common metabolic bone diseases, is characterized by the loss of bone mass and an increased risk of bone fractures due to an imbalance between bone mineral deposition (ie, osteogenesis) and bone resorption. It is currently a major health problem, affecting over 44 million Americans.[1] Women are more susceptible to osteoporosis than men, representing about 68% of adults diagnosed with the disease.[1] Additional risk factors include: family history of osteoporosis, aging, and Asian or Caucasian ethnicity. Conventional treatments (eg, bisphosphonates) have demonstrated efficacy in the management of osteoporotic lesions but are associated with detrimental adverse events. Cyplexinol® is a novel, natural protein complex that promotes pro-osteogenic activity in osteoporotic patients, as is shown in the case study below.

Disease Pathology

The earliest stage of osteoporosis involves the loss of bone mineral density (BMD), which is typically a period of asymptomatic disease progression. However, BMD loss generally continues until a fracture develops. BMD regulation is dependent upon a balance between osteoclasts (that degrade bone tissue) and osteoblasts (that mediate bone formation); both of these processes facilitate healthy bone growth and remodeling.[2] The production of osteoclastogenic cytokines (eg, tumor necrosis factor-α [TNF-α]) is suppressed by osteoblasts as well as peripheral T-cells.

Estrogen also plays a major role in bone remodeling.[3,4] The hormone promotes Fas ligand upregulation in osteoblasts, thereby inducing osteoclast apoptosis and preventing bone loss.[5,6] Menopausal estrogen deficiency is linked to increased rates of bone resorption, thus may be partially responsible for the higher incidence of osteoporosis in postmenopausal women.[7,8]

Furthermore, age-related hyperparathyroidism can lead to the deregulation of parathyroid hormone production, abnormal calcium metabolism, and increased calcium release from the bone, all of which facilitate the development of osteoporosis.[9,10] In addition, aberrations in the osteogenic differentiation of mesenchymal stem cell (MSC) precursors into osteoblasts may result in osteopenia and subsequent osteoporosis.[2,11] MSC precursor differentiation is regulated by bone morphogenetic proteins (BMPs), which belong to the family of transforming growth factor-β (TGF-β) proteins. Additional growth factors, such as basic fibroblast growth factor (bFGF), IGF-1, and vascular endothelial growth factor (VEGF), support osteoblast maturation as well.[12]

Cyplexinol: Historical Background

The case study discussed here demonstrates that oral administration of Cyplexinol®, an osteoinductive protein complex containing bone- and cartilage-stimulating BMPs and proliferative growth factors (TGF-β, bFGF, IGF, and VEGF), significantly increased BMD, as determined by DXA scan. "Osteoinduction" refers to the differentiation of stem cell (SC) progenitors into osteoblasts and chondrocytes. This process is regulated by BMPs. More specifically, though, this signaling pathway propagates bone and cartilage matrix synthesis (tissue) through osteoblast and chondrocyte differentiation, which subsequently promotes *de novo* bone growth and cartilage formation. The term "osteoinduction" was first coined by the orthopedic surgeon, Dr Marshall Urist, in his seminal work, *The Autoinduction of Bone*, published in 1965 in the journal *Science*.

During his academic career as the head of bone research at UCLA, Dr Urist strived to gain an understanding of what components in bone caused it to heal following fracture. He subsequently developed a technique that removed all of the mineral and cellular constituents within bone, leaving behind the collagen framework with a newly discovered bound protein. When this complex was introduced to MSCs, Dr Urist noted that the new protein complex induced the differentiation of stem cells into osteoblasts and chondrocytes, which produced *de novo* bone and cartilage tissue. He called this new protein Bone Morphogenetic Protein (BMP) and published his findings in 1965, thereby ushering in a new field of medicine, known today as osteobiologics. As advancements in cell and molecular biology techniques continued in the 1970s and 1980s, it was revealed that Dr Urist's discovery was not a singular BMP attached to a collagen molecule, but rather an entire family of BMPs that were covalently bound to and embedded within the collagen molecule. To date, we have discovered 22 isoforms of BMPs in the body, with BMP-2 through BMP-10 being concentrated in bone matrix or tissue.

This BMP-complex promotes osteoinduction by acting upon transmembrane serine/threonine kinase receptors. In their downstream signaling,



BMPs bind to either type 1 or 2 receptors to activate specific intracellular messengers known as SMADs. Osteoinduction primarily utilizes the activation of SMADs 1, 5, and 8 for downstream signaling. More specifically, BMP-activated type 1 receptors phosphorylate these intracellular SMAD signaling proteins, thereby forming heteromeric complexes with the common mediator SMAD-4.[13] The activated complex then translocates to the nucleus where it acts as a transcription factor that induces the expression of BMP-responsive genes. Accordingly, the activation of SMAD complexes induces mesenchymal stem cell (MSC) DNA, which propagates the differentiation of MSCs into either osteoblasts or chondrocytes.

By leveraging the same extraction techniques, this BMP-complex is extracted from a certified-organic, ultra-premium, food source yielding the only osteoinductive complex available for natural bone and joint health, known as Cyplexinol. This complex is a patented ingredient, manufactured in a cGMP, FDA-registered facility managed by some of the same scientific and management experts from the pioneering surgical company. Cyplexinol is the only ingredient proven to grow *de novo* bone tissue, providing the critical surface for minerals to bind to for healthy bones. In joints, Cyplexinol is also the only ingredient proven to differentiate MSCs into chondrocytes for new cartilage tissue growth via proteoglycan excretion.

Previous studies show that the ability of BMPs to promote osteoblast differentiation, along with the proliferative effects of growth factors (eg, bFGF, IGF, and VEGF)[14-21] facilitate bone tissue or matrix synthesis, bone deposition, and mineralization.[2] The following case study illustrates the potential role of Cyplexinol in the treatment of osteoporosis.

Case Study

Patient History

A 59-year old woman with menopause-associated osteoporosis presented with progressive loss of bone mass despite taking calcium and vitamin D supplements and being a nonsmoker. She was not receiving conventional osteoporosis treatment (eg, bisphosphonates), HRT, or using natural or synthetic steroids. She also did not have a history of rheumatoid arthritis, Paget's disease, type 1 or type 2 diabetes, or primary hyperparathyroidism.

Physical Exam & Treatment

DXA was conducted in order to obtain several BMD scans. Three initial DXA scans of her lower lumbar spine, taken at 0, 26, and 53 months, provided evidence of progressive BMD loss that was consistent with the advancement of osteopenia to osteoporosis (Table 1, online).

After the scan at month 53, she was orally administered 2 tablets/day of a product containing Cyplexinol (1 in the AM, and 1 in the PM). She followed this regimen for almost 3 years (March 2009-January 2012). Each tablet contained 200 mg Cyplexinol. DXA scans were obtained at 8 and 34 months into treatment. The T-scores from her DXA scans, in the form of SDs, were computed and compared to normative mean values for a healthy 30-year-old woman. The T-scores were subsequently averaged. The differences in Z-scores (reflecting how her BMD compared to the average woman her own age) demonstrated statistically significant differences over time.

Clinical Outcome

The T-scores obtained from the DXA scans demonstrated a statistically significant increase in BMD after 34 months of Cyplexinol supplementation. Specifically, T-score analysis of the DXA scan at 8 months after starting treatment revealed a 10% increase in bone density that correlated with the cessation of a 53-month history of bone loss. The comparison of DXA scan T-scores at the start of the Cyplexinol treatment (month 53) and after the treatment period of 34 months, demonstrated a 51.5% increase in BMD, consistent with the conversion of osteoporosis to osteopenia. Moreover, the L4 vertebrae T-score, which was -3.0 at the initiation of Cyplexinol treatment, improved to -0.9 after 34 months of treatment, consistent with normal bone density.

Summary

Based on research providing evidence of the osteogenic effects of BMPs and the proliferative activity of growth factors such as bFGF, IGF, and VEGF,[12, 14-21] it was hypothesized that oral administration of Cyplexinol would increase BMD and decrease bone density loss in individuals with osteoporosis. In this case study, the increase in BMD that occurred as a result of Cyplexinol administration may be attributed to increased osteoblast-mediated bone mineral deposition. In particular, Cyplexinol is a BMP/growth factor complex that targets several pro-osteogenic pathways in a manner that is similar to polypharmacological approaches. That is, BMP ligands in the Cyplexinol complex more than likely elicit cumulative effects that may synergistically enhance the differentiation of MSCs in the spine into osteoblasts. Additionally, the results of this case study are consistent with preclinical research suggesting therapeutic benefits of BMP-2, BMP-6, TGF-β, and bFGF in the improvement of osteoporotic lesions.[21-23]

Larger, randomized, clinical trials with Cyplexinol are needed to confirm the potentially significant osteogenic effects of this BMP-complex for people suffering from osteoporosis. This case study, however, is encouraging, as it illustrates the reversal of an osteoporotic spine to an osteopenic spine after 34 months of twice-daily Cyplexinol supplementation. It is postulated that continued use of Cyplexinol will also prevent the recurrence of the woman's osteoporosis. Based on the significant changes in the woman's BMD, the study was replicated and the findings again showed that long-term use of Cyplexinol resulted in positive alterations in bone mineral deposition. Overall, Cyplexinol is an osteoinductive BMP and growth factor complex that represents an innovative and efficacious therapeutic in the treatment of osteoporosis.

References and table available online at ndnr.com



Jaquel Patterson, ND, is a naturopathic physician working in both Connecticut and New Jersey. She has over 9 years of clinical experience, with a focus on autoimmune disorders, osteoarthritis, pain management and inflammatory conditions. Dr Patterson also currently serves as President-Elect of the American Association of Naturopathic Physicians.



When your patients are ready to detox...

...Help them succeed!

Recommend a simple, evidence-based, multi-system program.

PERQUE Detox Program

- Safer, natural 4-product system
- Supports phase 1, phase 2 and phase 3
- Helps remove water-soluble and fat-soluble toxins
- Convenient 30 day or more gentle 60 – 90 day program options



For a deeper look at detox, watch our webinar at:
http://eepurl.com/cpI8OT

PERQUE INTEGRATIVE HEALTH

PERQUE
800-525-7372

ELISA/ACT
Biotechnologies
800-553-5472

Be ready for detox season.

Contact **PERQUE at 800-525-7372** to order and ask about our **PERQUE Detox Program** Special.

For those with gluten sensitivities, we have just the right product...



In fact, we have over 300 of them!

ALL Biotics Research products are gluten free... and they always have been!

While other nutritional supplement companies now offer gluten free options in response to this trend, Biotics Research simply continues to do what it has always done...**set the trend!**

BIOTICS® RESEARCH CORPORATION
Utilizing "The Best of Science and Nature" to Create Superior Nutritional Supplements

GLUTEN FREE GUARANTEE

For more information, visit
www.BioticsResearch.com/glutenfree

800-231-5777 www.BioticsResearch.com

STAND FOR MORE.





GET MORE OUT OF LIFE.
AND YOUR SUPPLEMENTS.

based in
VERMONT, USA

FAMILY OWNED for over 45 YEARS

TRUTH IN LABELING

CLINICALLY RELEVANT FORMULAS

RESTORATIVE NUTRIENT LEVELS

NEVER SETTLE FOR LESS

DaVinci® *Laboratories of Vermont*

www.davincilabs.com

OUR NEW BENEFITS LINE

HIGH INTENSITY SUPPORT

FOR THE CONDITIONS YOU SEE THE MOST.

We developed our Benefits Line based on an acute challenge doctors, practitioners and patients were facing on a daily basis—the challenge of complexity.

When faced with too many choices, too many combinations of products, and too many "solutions" to a problem, compliance suffers.

LESS COMPLEXITY. MORE COMPLIANCE.

Make supplementation protocols a simple task by creating a streamlined family of essential, evidence-based formulations that target specific physiological systems. The Benefits Line simplifies the patient regimen. Instead of taking two or three products a patient can now take one simple supplement designed to deliver more. The end result is a concise line of standalone formulas designed to drive compliance—the Benefits Line.



ONLY THE ESSENTIALS. ONLY WHAT YOU NEED.

This is truly an "essentials only" line of clinically relevant products that provides your practice with a simple system for quality nutritional support that you and your patients can trust. This streamlined family of formulations was designed by clinicians for clinicians. Each formula contains highly specified ingredients at clinically relevant dosages, without any unwanted fillers or binders.

Request a Free Bottle

20 FORMULAS AVAILABLE

Please contact:
bkanya@FoodScienceCorp.com

EDUCATIONAL SUPPORT TO DRIVE COMPLIANCE.



One of the other challenges doctors and practitioners face is educating client's about the supplements they're taking. As part of our Benefit's Line we developed a Protocol Guide and Supplement Overview sheet to help patients and doctors make informed decisions and understand their pathways to health. Informed patients are compliant patients.

Lycored

MERIVA® BIOAVAILABLE CURCUMIN

BROCCOPHANE® Broccoli-Sprout Powder

MenaQ7® Vitamin K2 as MK-7

Quatrefolic®

45+ YEARS & GETTING STRONGER!

Contact us | 1.800.325.1776 | www.davincilabs.com

Search Engine Optimization

5 Essential Steps to Improve Local SEO for Your Practice

TEERAWONG KASIOLARN, ND, MSAC, LAC

What is SEO? And why is it so important when it comes to promoting your naturopathic practice? SEO stands for Search Engine Optimization. Most people create their website while lacking knowledge of SEO, especially if they create the website without any professional help. The main reason for creating a website is to promote your services; you want people to visit your website/practice and/or to buy your products. Even if you happen to have the fanciest, state-of-the-art website, not having the proper SEO to get traffic through the search engines will affect the visibility and the ranking of your website. This article provides 5 essential steps to improve your local SEO for your naturopathic practice.

Step 1: Claim and Optimize "Google My Business"

(for Google Search, Google Maps, and Google Plus)

As you may already realize, Google is the world's leader in the realm of search engines for both desktops and mobile devices.[1,2] Therefore, to improve and optimize your website ranking and local SEO, you should use Google tools as much as possible. Fortunately, Google provides an excellent and free service called Google My Business[3] (formerly known as Google Places), in which businesses can be found on their Search Engine Results Page (SERP) as well as on Google Maps. With Google My Business, once you are signed up and claiming your business, you will be able to update and optimize your business information and start engaging with your clients from your desktop computers and/or mobile devices for free.[3] For these reasons, setting up Google My Business is an essential step toward enabling potential clients or patients to find your naturopathic practice online and eventually become your loyal clients.

Step 2: Capitalize on Social Media & Online Directories

According to Pew Research Center, about "seven-in-ten Americans use social media to connect with one another, engage with news content, share information and entertain themselves."[4] In addition, based on the 2013 Nielson Global Survey of Trust in Advertising – a survey that polled more than 29 000 internet respondents in 58 countries – "sixty-eight percent of survey respondents indicated that they trust consumer opinions posted online."[5] The survey results also showed that "trust and action often go hand in hand,"[5] especially word-of-mouth marketing; "recommendations from family and friends and consumer opinions posted online prompted the highest levels of self-reported action."[5]

In the medical field, according to research by the American Osteopathic Association, over 65% of survey respondents "relied on a traditional method of finding a physician – word-of-mouth."[6] With such a high percentage of people trusting online reviews (representing word-of-mouth marketing), it is clearly important to capitalize on social media and various online directory reviews and testimonials to maximize the traffic to your website. Asking for reviews and testimonials can feel uneasy, but the words from your best clients or patients can have a crucial impact on the success of your practice. Here is a list of popular social media websites and other important online directories, to help promote your naturopathic practice:

- **Google My Business**: This was already discussed in Step 1. Google is ranked #1 among search engines, and, as of August 2016, had an estimated 1.6 billion new visitors each month.[7]
- **Facebook**: This is the most popular social media platform.[8] You can create your business fan page for free and start interacting with your current and potential clients. Your clients or patients can also write reviews or testimonials on your fan page.
- **Bing Places for Business**: Bing is the second most popular search engine in the United States and has about 400 million new monthly visitors.[7]
- **Yelp**: This is one of the most popular online local business reviews, and has a monthly average of 28 million new visitors.[9]
- **Yellow Pages**: This is the leading local marketing solutions provider in the United States. You can search and claim your business for free on their website.
- **Super Pages**: This is the local expert, as well as a top online resource for finding information and insights on businesses and retailers.

Step 3: On-Page SEO

On-page SEO is "the practice of optimizing individual web pages in order to rank higher and earn more relevant traffic in search engines,"[10] and "refers to both the content and HTML source code of a page that can be optimized, as opposed to off-page SEO which refers to links and other external signals."[10] Optimizing on-page SEO is a complicated task and requires an SEO professional to work on your website, as it has continuously changed and evolved over the years.

There are several on-page SEO factors[11] that can influence your website rankings in the search results, including the page keywords, page title, page content (especially the relevancy and length of the content), headline tags, image optimization, links (both internal and external), social media sharing buttons, responsive or mobile-friendly design, multimedia engagements (eg, images, videos, diagrams, etc), website speed, sitemap, etc.[11,12]

Regarding mobile-friendly design, according to an independent web analytics company, StatCounter, in October 2016, internet usage by mobile devices (smartphones and tablets) exceeded desktop usage worldwide for the first time.[13] In addition, starting in April 2015, Google made an announcement to use "mobile-friendliness as a ranking signal."[14] Hence, if your naturopathic website is not mobile-friendly or responsive to various mobile devices, it will negatively impact your website ranking and user experience. You can easily check to see if your website is currently mobile-friendly by using a free Google Mobile-Friendly Test tool.[15]

With regards to creating keywords for your website, you should think like your customers. Performing the keyword analysis is essential. Keyword analysis helps us understand the most common words employed by users to search for services/products that you provide to your potential customers. You can start your keyword analysis by searching your services/products. For example, when you perform a search on "naturopathic" through the Google search engine, at the bottom of the result page you will see a list of phases/keywords that are related to the topics of your search. The Google search engine also offers a free keyword analysis tool called Adwords Keyword Planner.[16] Once you create the Google Adwords account, you can search by phrases, websites, or category.[16] In the result page, you can see the relevant keywords and the average monthly searches. This can be a very useful tool when you optimize your keywords for your website.

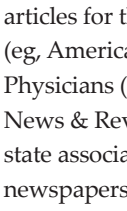
Step 4: Off-Page SEO

Off-page/off-site SEO refers to "actions taken outside of your own website to impact your rankings within search engine results pages (SERPs)."[17] Building high-quality backlinks[18] (from popular, trustworthy, and high-authority websites) is the most crucial component of off-page SEO.[18] For instance, you can boost your naturopathic website ranking by writing high-quality blogs/articles for the high-authority organizations (eg, American Association of Naturopathic Physicians (AANP), Naturopathic Doctor News & Review (NDNR), naturopathic state associations, local news websites, local newspapers, etc) and requesting backlinks to your website.

Step 5: Audit & Clean Up Your Local Citations

"Citations and external location signals are the 3rd most important ranking factor, according to the Moz local search ranking factors survey."[19] As a result, it is crucial that your naturopathic business information in the NAP format (Name, Address, Phone) is correct and consistent across the major citation sources. You can learn how to audit and clean up your local citations, yourself, at the Moz[19] website, which can be quite a time-consuming task. Or, you can pay companies (eg, Moz Local, Yext, Whitespark, etc) to audit and fix for you these incorrect business citations.

References available online at ndnr.com



Teerawong Kasiolarn, ND, MSAc, LAc, received his Doctorate of Naturopathic Medicine and Master of Science in acupuncture from Bastyr University in 2005. After graduation, he served as a naturopathic resident at UBCNM in CT, Yale-Prevention Research Center, and the Integrative Medicine Center at Griffin Hospital, a teaching facility affiliated with Yale University. For the 10 years since his residency, Dr Kasiolarn has been practicing at Nova Medical Group, the largest integrative primary care practice in Northern VA, as a naturopathic doctor and licensed acupuncturist. Dr Kasiolarn focuses on CVD, metabolic syndrome, diabetes, thyroid disorders, weight management/obesity, chronic pain, chronic fatigue, digestive disorders, anxiety/depression, and autoimmune diseases.



Naturopathic Physician's Oath

Its History & Meaning

HARRY F. SWOPE, MBA, ND, DHANP

Prior to 1993, NCNM and Bastyr were administering different versions of an oath to their graduating classes, and these had varied greatly over time. While this allowed the graduates some participation in the expression of their values, it did not provide a unifying force for the profession. As part of an effort to draw together and build the profession, the AANP board wanted to have a single naturopathic physician's oath that would be shared by everyone. The oath was also intended to inform people outside the profession about the doctrines and ethical values we uphold.

In 1990, Sandy Voigt, who was then Dean of Students at Bastyr, proposed to the AANP board that there was a need to create a uniform oath for naturopathic physicians.

At that time, I was volunteering with the AANP, and John Weeks – who was then Executive Director of the AANP – and Dr Tom Kruzel – who was Professional Affairs Chair – asked me to head up the effort to compose a single oath for graduating students. My task was to serve as editor for the process, drawing on a wide mix of input ranging from Dr John Bastyr, to leaders in the profession, to my friends and classmates. The list of names is too large to mention here, but numerous respected people in the profession were very engaged during the process.

After reviewing examples of naturopathic oaths that had been used previously, as well as oaths used by other professions, I sent an initial draft for a new oath to about 20 doctors that I especially respected, including graduates of both schools. Their comments were collated, and an updated draft was circulated to the AANP House of Delegates. A further revised draft was then presented to the House of Delegates at the 1991 convention at Whistler, where it was adopted as a working version. After an additional year of feedback and editing, the final version was achieved in a committee session of the House of Delegates and was passed by the full House at the Arizona convention of 1992.

In the process, phrases and words were added and removed to try to reach a statement that was both eloquent and meaningful as we sought to make this oath truly our own. The goal was to draw on the best of what had been used before while also encompassing the spirit of the profession as a whole. The principles cited needed to represent the heart and soul of what it means to be a naturopathic physician. They are not just a bunch of high-sounding pronouncements; rather, they are a road map to how we practice.

One of the key elements that distinguishes our oath appears near the middle of it:

> *Through precept, lecture, and example, I will assist and encourage others to strengthen their health, reduce risks for disease and preserve the health of our planet for ourselves, our families, and future generations.*

That's a sweeping but essential description of the foundational philosophy of naturopathic medicine. Unlike other professions, we see ourselves as catalysts for change in the broadest possible terms. Our focus is on serving others.

The oath also clearly states our 5 key principles:

- First of all to do no harm
- To act in cooperation with the healing power of nature
- To address the fundamental causes of disease
- To heal the whole person through individualized treatment
- To teach the principles of healthy living and preventive medicine

Those 5 principles outline our philosophy and our way of practicing. It's about serving individual people and teaching them how they can be responsible for maintaining their own health. It's about individualizing the treatment to the person, not to a disease name.

It is the first principle that is most critical. Our goal is to use methods that have very limited possibility of harm. While "modern, scientific" medicine willfully accepts the harm (mellifluously called "side effects") inherent in their methods and focuses on the suppression of symptoms rather than addressing the fundamental causes of disease, our focus is on helping people regain the fullest possible freedom from limitations in all dimensions: mental, emotional, and physical.

I had the honor of leading those attending the 1992 AANP convention in Arizona in reciting the newly adopted oath. I am immensely proud of how my colleagues have embodied the principles of the naturopathic physician's oath over the 25 years since.

Sincerely,
Dr Harry F. Swope



Women's Personal Care Products

A Dangerous Source of EDCs

ALEXSIA PRIOLO, ND

Personal care products are defined as products used to maintain personal hygiene and beautification. In 2015, US retail sales of beauty products reached an estimated $46.2 billion and are forecast to continue to grow.[1] The average woman uses 12 personal care products each day, which comprise about 168 ingredients.[2]

Many of these 168 unique ingredients are known as endocrine-disrupting chemicals (EDCs) due to their interference with hormonal balance. New research has also shown that not only do these chemicals primarily affect fertility, they may also play a part in other conditions such as obesity and coronary heart disease.

This review will specifically focus on the effects of phthalates, bisphenol A, triclosan, and parabens on female health, as these EDCs are most often found in women's personal care products.

Phthalates

Phthalates are diesters used in plastics to improve elasticity and pliability. Because they are not bound to plastic via covalent bonds, they can be absorbed by the body. They have been found in fluids including blood, breast milk, saliva, and urine. Phthalates can be classified as high-molecular weight (HMW) or low-molecular weight (LMW), based on the type of phthalates and how easily they accumulate within the body.[3] HMW phthalates bio-accumulate less than LWM phthalates, although they're not as prominent in personal care products. LMW phthalates include di-butyl phthalate (DBP), dimethyl phthalate (DMP) and diethyl phthalate (DEP) – all of which have been found in personal care products. Phthalates are considered both estrogenic and anti-androgenic endocrine disruptors that have been shown in animal studies to affect reproductive organs and prenatal development.

A 2009 study[4] assessed the association between prenatal exposure of phthalates and their effects on children's heath – specifically anogenital distance, as it is an indicator of in-utero androgenic exposure. The study was conducted using pregnant women planning to undergo amniocentesis. Urine and amniotic fluid were both collected from the pregnant women. Upon the birth of 65 newborns, their birth weight, height, gestational age, and anogenital distance were recorded. It was determined that phthalate exposure of methyl-butyl phthalate (a metabolite of DBP) was linked with a shorter anogenital index (adjusted for weight) in female newborns. According to the study, this may have a wide variety of implications, including delayed onset of puberty and impairments in pituitary function in women.[4] Conversely, a study by Chou et al,[5] which studied 89 girls (56 with early puberty), demonstrated a higher urinary level of monomethyl phthalate (MMP, a metabolite of dimethyl phthalate, or DMP) in the premature thelarche when compared to the control group. Therefore, while phthalate exposure does appear to affect female health, more research is needed to determine its exact effects.

In 2012, Olsen et al[6] examined the relationship between circulating levels of common phthalate metabolites and cardiovascular risk factors in 1016 elderly subjects in Sweden. It was determined that the metabolite MMP (from DMP) was associated with LDL-cholesterol and an increased risk of coronary heart disease.

Bisphenol A

Bisphenol A (BPA) is used in the manufacturing of polycarbonate products and epoxy resins. Humans are most often exposed through oral ingestion of food which has been stored in containers using a BPA-lining.[7] Exposure may also occur via drinking water as well as contact with thermal paper or household particles. BPA is commonly excreted in the urine, and is present in bodily fluids and tissues. It is structurally similar to 17β-estradiol and can therefore bind to estrogen-related receptors. The binding of BPA to these receptors has been shown to promote insulin resistance, adipogenesis, pancreatic beta-cell dysfunction, inflammation, and oxidative stress.

In 2011, Carwile and Michaels[8] used data from 2747 adults, aged 18-74, from the 2003-2006 National Health and Nutrition Examination Surveys (NHANES) to determine the effects of BPA and the incidence of general and central obesity. Overweight and obesity were defined as a BMI of 25-29 and >30, respectively. They determined that urinary BPA concentrations were associated with general and central obesity. Participants in the upper BPA quartiles had a higher BMI, on average, than those in the lowest BPA quartile.[8] In addition, they noted that participants in the upper 3 BPA quartiles had a 3.64-3.98-greater waist circumference, as well as increased odds of being classified as abdominally obese, compared to those in the lowest BPA quartile. Although this was seen in both men and women, when stratified by sex, associations were stronger in men.

A 2014 study by Sun et al[9] examined the association of urinary concentrations of BPA and phthalate metabolites and risk of type 2 diabetes in the Nurses Health Study (NHS) and NHSII cohorts. Urinary samples were collected from both cohorts to determine BPA exposure, and diabetes was diagnosed via questionnaires; a total of 971 confirmed type 2 diabetes cases were included in the study. Moreover, positive correlations were found between both BPA and butyl phthalate concentrations and type 2 diabetes incidence in women enrolled in the NHSII cohort.[9]

Although BPA is mainly present in food products and enters the body through oral ingestion, a recent study from Hormann et al[10] has demonstrated a unique route of entry. After coming into contact with BPA-lined thermal paper (ie, receipts) after using hand sanitizer, BPA absorption into the skin increased. They indicated that some hand sanitizers and other skincare products contain mixtures of chemicals that are also used as dermal penetration enhancers to increase the transdermal delivery of drugs. This study mimicked aspects of behavior of individuals at a fast-food restaurant. Holding a receipt for 45 seconds after using hand sanitizer resulted in maximum BPA absorption (581 μg BPA). At 2 and 15 seconds, 40% and 58% of BPA, respectively, was recovered from the hand, when compared to baseline numbers. Serum unconjugated BPA was increased after using hand sanitizer, handling thermal paper and eating French fries with the contaminated hand. This result was markedly increased in females versus males. When thermal paper was handled without using hand sanitizer, less BPA was transferred, as compared to baseline.

Although the majority of BPA is not found in personal care products, this research demonstrates that certain products contain chemicals that increase dermal absorption of BPA, thereby contributing to the growing risk of obesity and diabetes.

Triclosan

Triclosan, an ester, is commonly used as an antimicrobial agent in personal care and healthcare products including: toothpaste, antibacterial soap, shampoo, and deodorant. It's absorbed mainly by dermal and digestive routes and was detectable in 75% of the urine samples in the NHANES survey.[11] Triclosan has a similar structure to BPA and thyroid hormones, suggesting it may influence endocrine function.[12]

Velez et al[13] utilized data from the Maternal-Infant Research on Environmental Chemicals (MIREC) study from women across Canada between 2008 to 2011. This was a pregnancy-based retrospective time-to-pregnancy (TTP) study, assessing 1699 women in the triclosan analysis. It was determined that triclosan was associated with longer TTP and that women in the highest quartile of triclosan burden also showed evidence of a 16% decrease in fecundity.

Parabens

Parabens are commonly used as antimicrobial preservatives in cosmetics, food products, and pharmaceuticals. They primarily enter the body through dermal absorption and are largely excreted in the urine, although can remain in the body's adipose tissue. Parabens are classified as an EDC, as they have weak estrogenic activity.[14] Animal studies have demonstrated adverse effects with respect to female reproductive and endocrine function.

There are 4 types of parabens: butyl-, ethyl-, methyl- and propylparabens. The methyl and propyl forms are most commonly used as preservatives in cosmetics. A 2013 study[15] examining 192 patients seeking infertility treatment showed a negative relationship between propylparaben concentration and antral follicle count. Higher urinary propylparaben was associated with a higher Day-3 FSH.[15] It thus appears that propylparaben may negatively influence ovarian reserve and contribute to ovarian aging.

Prevention

A study conducted in 2016[16] with female adolescents, demonstrated that replacing commonly used personal-care products containing EDCs with their "free-from" counterparts reduced exposure to these disruptors. This study was unique because it taught the young women about these chemicals and their health effects. At the conclusion of the study, 71% of the participants indicated that they would purchase personal care products that were free from EDCs, and 23% of the participants assessed their regular products for these chemicals.

Overall, many women find the sheer number of product options overwhelming and often turn to consumers for information on how to choose beauty products.[1] This lends itself to an interesting opportunity for naturopathic doctors as teachers because we can help educate women on which products to avoid that are harmful to our health – especially fertility. At all initial visits, naturopathic doctors should be asking their clients which products they are using on a day-to-day basis. We can then use this information as a teaching tool, helping women to choose safer products for themselves and their family.

References available online at ndnr.com



Alexsia Priolo, **ND**, is a naturopathic doctor, licensed and registered with the College of Naturopaths of Ontario. Dr Priolo graduated from York University with a (honors) Bachelor Degree of Science, and from the Canadian College of Naturopathic Medicine. She currently practices in Toronto, and while she has a general family practice, her passion resides in women's and children's health. Dr Priolo aims to educate and empower her patients so they can lead happy and healthy lives.

ND Classifieds

Naturopathic Medical Practice for Sale in Western MA

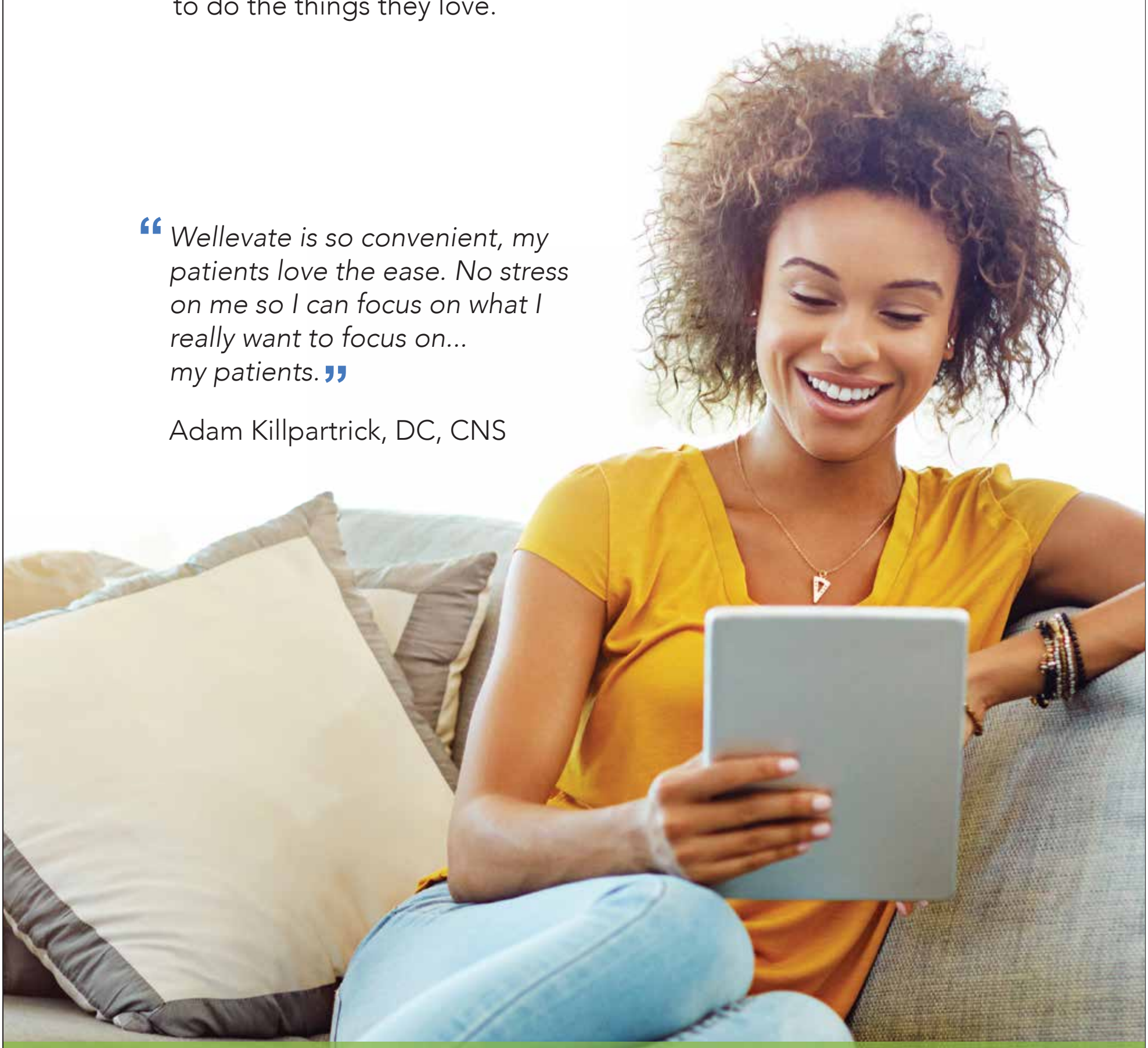
15 year old, cash-based, general family medicine practice for sale. A turn key practice with an extensive referral network. Well known and respected in the community with a lucrative income from ongoing pharmacy sales. Over 850 active charts with a 1 month waiting list. The only Naturopathic doctor in the Greater Springfield area; a multicultural city and surrounding suburban towns. Ideal location adjacent to the only health food store in the area and as part of an Integrative clinic with other practitioners offering various holistic services. Free advertising with ability to promote, give talks and/or teach classes. Property owner will lease to new owner of the practice. Doctor is available short term for ease of transition and will be moving out of state. Financial information is available to serious buyers with a confidentiality agreement. Inquire at creatree@aol.com or call 413-783-1932.

emerson ECOLOGICS® | wellevate℠

Meet wellevate℠, the convenient online dispensary from Emerson Ecologics.

Your patients can order from the broadest selection of professional-quality supplements anywhere, anytime, from any device—giving them more time to do the things they love.

> *"Wellevate is so convenient, my patients love the ease. No stress on me so I can focus on what I really want to focus on... my patients."*
>
> Adam Killpartrick, DC, CNS



- Industry leading quality verification program
- Free shipping on orders of $250 or more
- Educational resources and peer-to-peer support
- Largest selection of professional brands

Female Sexual Dysfunction

A Comprehensive Medical Approach to FSD

CRISTINA ROMERO-BOSCH, NMD

Female Sexual Dysfunction (FSD) negatively affects the overall quality of life of females, and may often be responsible for specific psychologic and physiologic disturbances. This condition not only adversely affects interpersonal relationships, but also affects health.[1,2] The purpose of this article is to provide an overview of guidelines for diagnosis so that FSD maybe better recognized, also to provide treatment suggestions that may help relieve the patient of this unnecessary ailment.

Female Sexual Dysfunction & Sexuality

Although FSD is increasingly recognized, it nonetheless continues to be significantly underdiagnosed. Prevalence of FSD in the developed world is estimated at 25-60% but only through surveys.[3] Since these statistics are not reflective of actual diagnoses, they only convey how common this condition is, *not* how effectively it is being medically managed. This broad range may also suggest the difficulty both patient and physician have in recognizing a female sexual dysfunction. Adding to the challenge of proper diagnosis is patients either not being aware that they have a sexual dysfunction or feeling too uncomfortable or embarrassed to discuss their concerns with their health professional.[4]

To better understand the complex nature of FSD, it is important to define the condition and its diagnostic criteria, and to be familiar, in general, with the multi-factorial notion of sexuality.

Female sexual dysfunction is recognized as an official diagnosis despite its highly subjective nature. The ICD10 code of F52 is defined as "Sexual dysfunction that is not due to any known substance or physiologic condition."[5,6] However, this does not consider low levels of sex hormones as a physiologic condition.

FSD is further categorized, depending on the predominant complaint of the patient, into 4 types[7]:

- **Low sexual desire**: This is the most common form of FSD; it is also the most abstract, as it is defined by a lack of interest and lack of willingness for sexual interaction[8,9]
- **Sexual arousal disorder**: This is diagnosed when the person reports a desire for sex but has a pronounced difficulty with arousal
- **Orgasmic disorder**: This is diagnosed when the person wants to have sex, is able to be aroused, but then cannot reach orgasm. This difficulty with orgasm must be reported after the person confirms a desire for sex and an ability to feel sexually aroused.
- **Sexual pain disorder**: This is independent of desire and arousability. This presents in the person that has any pain associated with sexual stimulation or vaginal contact.

A reason for patients not knowing that they indeed suffer from FSD is the cultural lack of appreciation for female sexual satisfaction. Traditional culture has placed such emphasis on male orgasm over female orgasm that many women do not even realize this is an attainable option. A female's relationship to a satisfying adult sex life (or lack thereof) stems from the formation of her sense of sexuality from childhood.[10] Because an individual's sexuality is at the core of this diagnosis, understanding sexuality can help to identify root causes of FSD in a patient.

Sexuality is defined as the state of being sexual, including engaging in sexual activity, sexual identity, and the expression of sexual interest. This multifaceted complex involves the individual's physical, physiologic, and psychological self. It also involves the person's culture, life experiences, beliefs, and values. In addition, sexuality varies with each relationship, revealing that a sense of intimacy is a significant influence on sexuality and, hence, female sexual dysfunction.[11] Defining one's sexuality is an ongoing process throughout an individual's life.

Sexuality can be divided into 2 categories: 1) Sexual Identity (gender identity, sexual orientation, and sexual intention); and 2) Sexual Function (desire, arousal, orgasm).[12] These components shape a woman's assessment of her sexual experiences and satisfaction.

With this preliminary understanding of sexuality and FSD, healthcare providers can begin to dissect the layers of FSD presenting in a patient through open, non-judgmental discussion with the patient, where together a detailed history of the symptoms, current relationship, and sexual satisfaction can be compiled that yields clues as to what treatment options might be most effective. The Female Sexual Function Index (fsfi) is a useful survey of symptoms that can be used to help guide the diagnosis and determine categories of primary concern.[13]

Causes of FSD

Appreciating the complexity of female sexual dysfunction will encourage the healthcare provider to be thorough in their evaluation. FSD can occur at any point during a female's life and can be specific to a relationship, time-frame, or situation, or can be due to an ongoing state of disease. The first step in treating FSD is understanding to what extent the patient is inflicted.

The primary potential causes, to be determined through open discussion with the patient, are the following:

- **Mental and Emotional Stress**[14]: This broad category relates to everything from financial concerns to the health of loved ones. Obviously, a detailed history is vital here.
- **Lack of Intimacy**: Although this can be grouped under Mental and Emotional Stress, because this is the most common cause of sexual dysfunction in women, it should ideally be evaluated as its own category.[15,16] It is important to keep in mind that, as the healthcare provider, you may be the first to identify FSD for the patient; she may not be aware that her disinterest in her sexuality is a condition that can and should be treated. An unwitting female may not realize that FSD might be causing additional health concerns such as anxiety, depression, or chronic inflammation from chronic stress. The treatments she may be using to address these ailments might also be exacerbating her FSD, thereby making both the FSD and the "side effect" ailment less likely to resolve.[17]
- **Sex Hormone Deficiency**: Situational transitions such as post-pregnancy or menopause can lead to FSD. Peri- and post-menopausal states are common causes of FSD, since lower testosterone and estrogen levels can result in decreased libido, genital dryness/atrophy, and other factors impacting sexual responsiveness and pleasure.[18]
- **Medications**: Technically, pharmaceutical agents such as anti-hypertensives and anti-depressants would be "a known cause" for FSD, and therefore do not accurately fulfill the ICD10 criteria for diagnosis. However, they are mentioned here as a reminder of causative agents that can be easily overlooked.[19]
- **Chronic Inflammatory Conditions**: An appropriate review of systems will help identify concomitant conditions that may be causing or exacerbating FSD. Is there a cardiovascular component preventing engorgement of the clitoris? Are there gastrointestinal complaints causing pain in the abdomen that makes penetration uncomfortable? Is there any localized trauma to the genitalia, eg, lichen sclerosis, causing pain during stimulation?

Treatment

Treatment recommendations must be as multi-factorial as the condition. Female sexual dysfunction perfectly fits into the philosophy and scope of naturopathic physicians, as they are specifically trained to encourage open discussion for the purpose of a detailed history. Naturopathic physicians are also skilled at identifying the underlying causes of a patient's symptoms by exploring all potentially involved systems, versus simply regarding FSD as a gynecologic or psychological condition. This is vital for the diagnosis and successful treatment of FSD, since it is a highly complex condition that is illuminated only when the patient can be guided into earnest disclosure.

Bioidentical HRT

The use of testosterone and/or estrogen, and replacement, when indicated, has been shown to positively enhance sexual function overall.[20,21] Of course, progesterone should always accompany estrogen replacement in a woman with an intact uterus.

The "O"Shot

Platelet-Rich Plasma (PRP) injected into the vagina, clitoris, and surrounding genitalia can often enhance sexual pleasure as well as ease and quality of orgasm, both clitoral and internal.[22]

Lifestyle Modification

Factors such as smoking, excessive alcohol, and sedentary lifestyle have been shown to negatively affect sexual arousal.[23,24]

Mental/Emotional Therapy

Mental/Emotional (M/E) therapy in varying forms, along with replacement of deficient hormones, often produces a successful outcome. An exploration of intimacy, the health of the patient's current relationship, and the patient's own view of sexuality are all vital components. In the case of a monogamous relationship, this detailed discussion can be even more effective when both partners are interviewed together as well as apart. Although therapy, specifically sex therapy, has been the primary treatment for FSD, it has been found to be ineffective at completely resolving the condition when used as the sole form of treatment.[25] So, although M/E therapy is often helpful, consideration of these other factors is important.

Conventional Pharmaceuticals

Interventions such as sildenafil have been shown to improve clitoral sensitivity, but not found to improve sexual desire.[26,27]

Conclusion

It is the complexity and multi-factorial cascade of possible contributing factors that make female sexual dysfunction such an important health concern. Understanding the intricacies of sexuality will enable healthcare practitioners to successfully identify and correct this condition. A multi-pronged approach is the most efficient way to treat FSD. Therefore, remaining well grounded in the principles of treating the cause and treating the whole person will ensure that female patients achieve a more satisfying and healthier sexual identity and expression.

References 9-27 available online at ndnr.com



Cristina Romero-Bosch, NMD, and **John A. Robinson, NMD**, have been practicing medicine since 2006. They bring their passion for healthy living and graceful aging to their patients every day at The Hormone Zone, their cutting-edge medical practice, located in Scottsdale, AZ. Visit www.hormone-zone.com for more info.

REFERENCES

1. Frank E, Anderson C, Rubinstein D. Frequency of sexual dysfunction in "normal" couples. *N Engl J Med.* 1978;299(3):111-115.
2. Schnarch D. *Intimacy & Desire: Awaken the Passion in Your Relationship.* New York, NY: Beaufort Books; 2011.
3. Aschkenazi SO, Goldberg RP. Female Sexual Function and the Pelvic Floor. *Expert Rev Obstet Gynecol.* 2009;4(2):165-178.
4. Mercer CH, Fenton KA, Johnson AM, et al. Sexual function problems and help seeking behaviour in Britain: national probability sample survey. *BMJ.* 2003;327(7412):426-427.
5. ICD10Data.com. The Web's Free 2017/18 ICD-10-CM/PCS Medical Coding Reference. Available at: http://www.icd10data.com/. Accessed September 1, 2017.
6. Shifren JL, Johannes CB, Monz BU, et al. Help-seeking behavior of women with self-reported distressing sexual problems. *J Womens Health* (Larchmt). 2009;18(4):461-468.
7. Derogatis LR, Rosen R, Leiblum S, et al. The Female Sexual Distress Scale (FSDS): initial validation of a standardized scale for assessment of sexually related personal distress in women. *J Sex Marital Ther.* 2002;28(4):317-330.
8. Simons JS, Carey MP. Prevalence of sexual dysfunctions: results from a decade of research. *Arch Sex Behav.* 2001;30(2):177-219.

Hydropathic Medical Adviser, 1900

SUSSANNA CZERANKO, ND, BBE

[Nature's] ways are so simple and harmonious, that people are confounded by her very simplicity. Besides, her remedies do not cost enough money to make sufficient impression upon the minds of the ignorant (?) intellectuals.
Ludwig Staden, 1900, p.126

I repeat, the duration of the half-bath should never exceed from two to six seconds.
Sebastian Kneipp, 1901, p.14

The true Naturopath will always treat individually; he is treating the person, not the case. Each person is differently constituted, consequently every case must be different.
Ludwig Staden, 1902, p.15

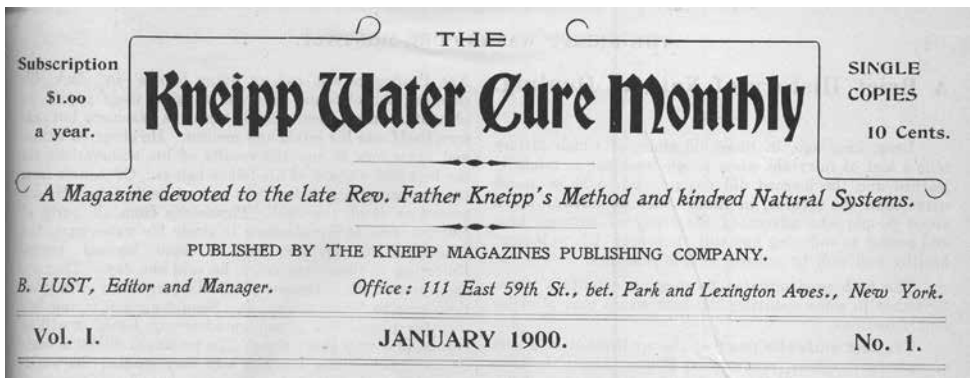
In 1896 the world of publishing was an entirely new adventure to the young Benedict Lust. At only 24 years of age he began his first magazine, *Amerikanischen Kneipp Blätter*, as a promise to Father Sebastian Kneipp to raise awareness of water cure in America. His first foray into the American serial publication scene was mostly a German bimonthly (and eventually monthly) issue on water cure as defined by Kneipp. The articles in Lust's early publications were either excerpts from Kneipp's books or from other German authors writing about Kneipp's water cure, with occasional English translations from Kneippian books. As the name of his magazine indicated, Kneipp's name and water cure therapies were exclusively targeted to an audience composed of German immigrants who would be very familiar with Kneipp's contribution to health and hydrotherapy.

By 1900, Benedict Lust had had 5 years under his belt of producing his magazine in New York City. With each passing year the issues increased in volume, source of content, advertisements, and distribution. In 1900, though, Lust not only changed the name of *Amerikanischen Kneipp Blätter* to *The Kneipp Water Cure Monthly*, but also switched to English in his efforts to educate an uninformed American public with little knowledge of Kneipp's work. Lust's top priority was to spread the work of Kneipp's water cure and therapies. In the masthead of the January issue, 1900 (Figure 1), Lust writes, "A Magazine devoted to the late Reverend Father Kneipp's Method and kindred Natural Systems." (Lust, 1900, p.1) The cost for a single copy was 10 cents, and for a year's subscription, $1.00. This new English publication had a larger market to reach and serve within New York City and beyond, from his publishing headquarters at 111 E 59th Street. He had also diversified by opening up a "Kneipp Health Store" that sold every conceivable item associated with Kneipp, including herbal teas and pills, food items, healthy underwear, garments and shoes, and books.

Kneipp's own writings essentially formed the foundation for Lust's magazine, especially in the beginning. It is interesting to witness the changes that took place in Lust's publications as his horizons widened. In 1900, Lust's little publication attracted many more people who had common interests. Soon, the number of Kneipp excerpts and articles that first dominated declined, and other writers and therapies other than water cure were soon added to the pages. Lust, himself, contributed more articles written in English, and dialogues formed between readers and those aligned with the vision of natural healing as espoused by Lust.

The Kneipp Water Cure Monthly was a growing concern. Like a train leaving the station, people wanted to be on board. Supporters, such as Mr Peter Semler of 64 Franklin St, Jersey City Heights, NJ, opened up a branch office for Lust's publication. (Lust, 1900, p.187) Semler's office enabled more people to access the publication and also to further the spread of Kneipp therapies elsewhere. Lust continued to form similar relationships with others to increase the distribution of his publications.

Figure 1. ***Kneipp Water Cure Monthly*** **Masthead**


THE
Kneipp Water Cure Monthly
Subscription $1.00 a year.
SINGLE COPIES 10 Cents.
A Magazine devoted to the late Rev. Father Kneipp's Method and kindred Natural Systems.
PUBLISHED BY THE KNEIPP MAGAZINES PUBLISHING COMPANY.
B. LUST, Editor and Manager. Office: 111 East 59th St., bet. Park and Lexington Aves., New York.
Vol. I. JANUARY 1900. No. 1.

Ludwig Staden

Ludwig Staden (Figure 2) called himself a "Naturarzt" and also referred to himself as a Hygienic Physician. As an early



adapter, he already subscribed to natural healing and water cure when Lust began his publications. In an early advertisement that Staden placed in *The Kneipp Water Cure Monthly*, he states that his clinic was Brooklyn's first "Light & Water Cure Institute" (Figure 3). Located at 346 Schermerhorn St, Brooklyn, NY, Ludwig Staden practiced with his wife, Carola, a practitioner of the Thure-Brandt massage for women.

The Stadens had an eclectic practice that incorporated water therapies from Vincent Priessnitz and Sebastian Kneipp, as well as the steam and friction hip baths of Louis Kuhne, the air cure of Arnold Rikli, physical culture fostered by Bernarr Macfadden, Swedish massage, and vegetarianism. Ludwig and Carola both contributed writings to Lust's magazine. Carola focused on women's health and gynecology, and Ludwig became a monthly contributor for a column, "Hydropathic Medical Adviser" that provided free health advice to the subscribers of *The Kneipp Water Cure Monthly*.

Bilz's *Natural Method of Healing*

In the description of his column, Staden indicates that the free advice is offered following "the rules of the Natural Method of Healing." (Staden, 1900, p.14) Staden's reference to "Natural Method of Healing" was an explicit declaration that he was adhering to the Kneippian principles and therapies, recorded at the time in a colossal 2-volume set that was also called *Natural Method of Healing* (1898), written by Friedrich Eduard Bilz.* Bilz' encyclopedic account of Kneipp's water cure became a reference guide or textbook for the early practitioners of water cure. In his books, Bilz elaborated, in greater detail than Kneipp himself had, on each of the water therapies used in a water-cure sanitarium, and provided treatment protocols for every conceivable disease of his day.

In his first chapter, Bilz provides an introduction to the natural method of healing and includes 26 rules, or principles. The first and probably most important rule is that water applications are only carried out if the patient is warm. I have numbered and summarized these rules as follows (Bilz, 1898, p.1-6):

1. Before water applications, the patient is warm.
2. Compresses can be applied before bed.
3. Treatment rooms should be warm.
4. No water treatments shortly before or after meals.
5. No treatments after unusual excitement or exercise that puts the blood in motion. The patient should be tranquil before a water treatment.
6. Exercise, hot water bottle, friction, and bed rest after water treatment restore warmth to the patient.
7. A cold water treatment is given after all warm water applications.
8. The body must recover its warmth before administering a second water treatment.
9. Sips of water during treatments are advised.
10. Sick patients should abstain from a stimulating diet.
11. Care and cleanliness applies to materials and methodologies used by those attending patients.
12. The sick room has ample fresh air so that patients can rest.
13. Never wake a patient during a treatment.
14. Weak patients should receive mild baths (92° to 94° F/33° to 34° C).
15. Patients capable of enduring cold water applications produce reactions; for example, reddening of the skin.
16. Warm water applications above 100° F/38° C are rarely recommended.
17. Patients receiving foot or hip baths should not read during the treatment.
18. Symptoms of an illness can occur consecutively or concurrently.
19. Cheerfulness is an important factor in healing.
20. If cure does not come quickly, proceed slowly.
21. Do not plunge into treatment.
22. Do not be harsh with children adverse to cold water.
23. Use warmer water (2° to 4° F/1° to 2° C warmer than normal) for enfeebled patients.
24. Taking medications concurrently with water therapies impedes results.
25. Review the chapter on fever in Bilz's book, *The Natural Method of Healing*.
26. Review the treatments for each disease condition that are listed in Bilz's book.

Bilz cautions that "small efforts of water applications" often produce the best and greatest outcomes. He reminds us of the true healer: "It is Nature that cures, not we." (Bilz, 1898, p.6)

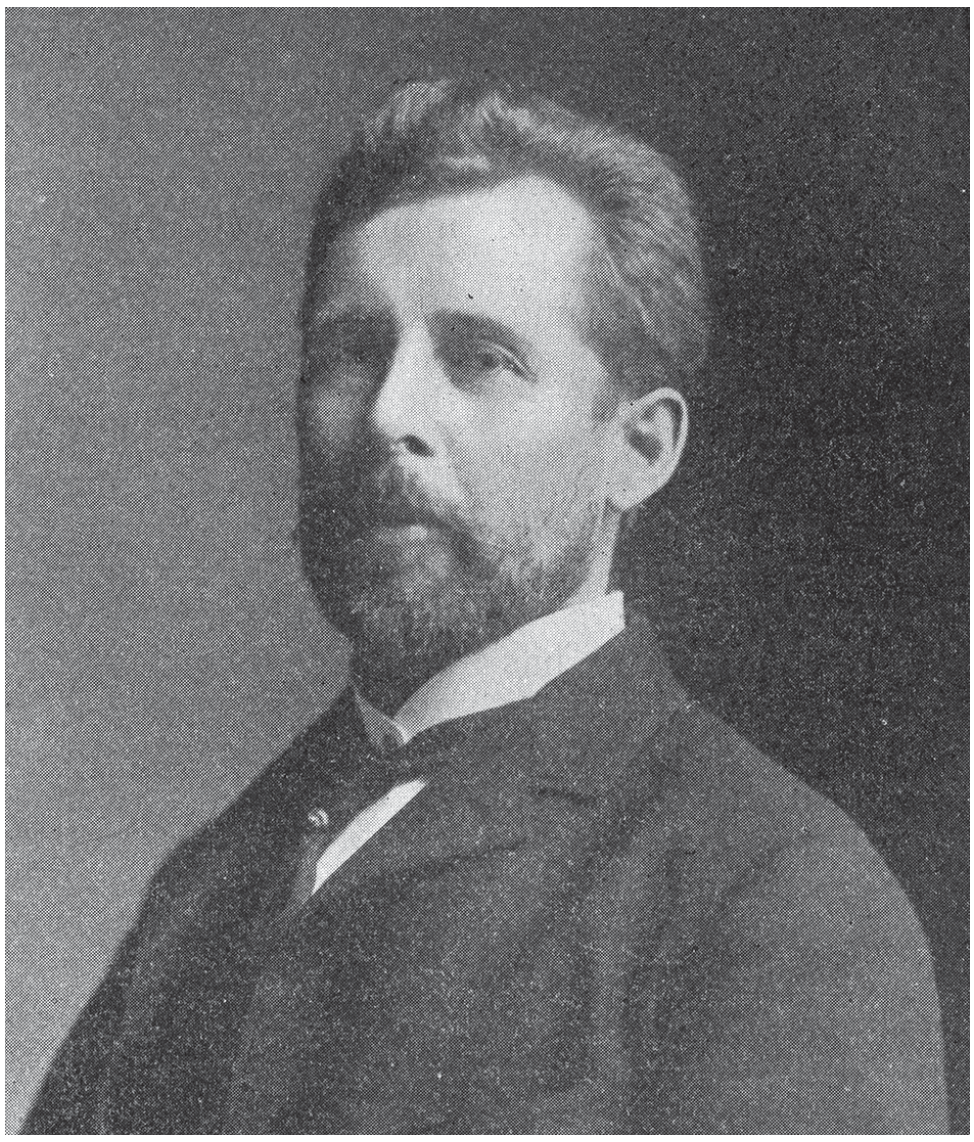
Hydropathic Medical Advice For FREE

Each month in 1900, Staden answered letters sent to *The Kneipp Water Cure Monthly* in his column, "Hydropathic Medical Advisor." His answers provide clarity and enlighten us as to how the early Kneippians and water-curists treated different diseases. The above list of Bilz' guidelines for water cure gives us a fair idea of the important considerations that Kneipp used for the treatment of different diseases. However, what is missing, that we cannot read in between the lines, is how to determine why one water application was chosen over another. Another

Bilz cautions that "small efforts of water applications" often produce the best and greatest outcomes. He reminds us of the true healer: "It is Nature that cures, not we."



Figure 2. **Ludwig Staden; 1902**



confounding factor is that one practitioner used one methodology while other water therapists used another. Even so, Staden's treatment plans generated for the readership of Lust's publications reliable insight into a pattern or a logical rationale for his clinical decisions.

The breadth of problems fielded by Staden spanned every bodily system. For example, he received inquiries regarding asthma, headaches, chronic nasal catarrh, bladder spasms, hemorrhoids, eye symptoms, epilepsy, mumps, chronic cold feet, uterine cancer, amenorrhea, lupus (skin), hay fever, mercury toxicity, dyspepsia, constipation, nervousness, etc. When receiving a complicated case, Staden did not hesitate to refer the person to seek personal care with qualified practitioners.

To Lillian S. of Washington, who suffered from epilepsy, Staden writes, "I would recommend to you a course of treatments in a good water institution; there you [can easily] learn how to treat yourself later at home without fearing to make a mistake." (Staden, 1900, p.46) To Katie F., of St Andrews, Canada, Staden writes, "The best advice I can give you is to go into a Sanitarium of our method, for instance, Dr. Strueh's at Belden Avenue, Chicago or Dr. Kellogg's at Battle Creek." (Staden, 1900, p.210) Although he refers these women to seek help, he also provides some suggestions on diet and water applications.

Staden was prolific. The brief scope of this article, alas, dictates representative cases from among the myriad letters and conditions that Staden addressed. Let us consider 3 respiratory conditions as cases in point: asthma, chronic nasal catarrh, and hay fever. We will notice that there are common prescriptions, and also individualized as well as specific instructions.

Asthma

In January's issue, Mr G. M. of Scranton, PA, writes for help for asthma. In response to Mr Scranton's initial letter, Staden's suggestions are comprehensive. He begins by outlining for his patient a process for water-cure hardening, leaving no stone unturned. The concept of hardening was first introduced by Vincent Priessnitz, who used cold water applications to strengthen the body against disease and boost the immune system.

It is indeed intriguing to learn how Staden instructed the patient in the hardening process. Each morning the prescription entails a cold sponge bath followed by a friction rub. The patient returns to bed for 10 to 15 minutes to warm up. During the week, 3 to 4 bed steam baths are recommended, with emphasis on using 3 hot water bottles for the feet, calves and thighs; and 3 times a week, alternate foot baths are taken. The alternate foot bath is in tubs of hot water 1 foot deep, with water temperatures of 100° to 105° F/38° to 40.6° C for 5 minutes and alternated with a cold foot bath for a half-minute in water that is 60° F/15.6° C.

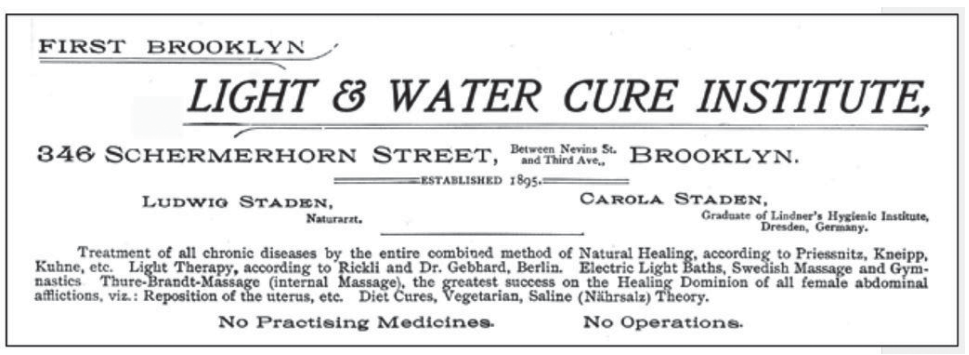
Bed Steam Bath Directions

The bed steam bath was a common treatment given by Staden in the hardening process. Ironically, the name of this water application is quite misleading. We think that steam is being used in bed, and that is far from the truth. In another issue, Staden is asked to describe how to administer a bed steam bath. He answers:

> *The bed steam bath is a three-quarter or full pack with one hot bottle (if possible, stone bottle wrapped in a wet towel applied to the feet, two of such bottles outside to the calves, and two bottles to the thighs. First, the body has to be wrapped in a wet sheet, then the hot bottles have to be placed, then the woolen blanket has to be enveloped round the whole. Three hot bottles on average are sufficient. Duration of the bed steam bath is from one to three hours. (Staden, 1901, p.228)*

Kneipp's signature water treatment was the "gush." Staden tells the patient to begin on the first day with a knee gush or douche; on the second, the upper douche; and the third day, the back douche. Kneipp originally used a simple garden watering can, and preferred it to the use of a hose. For example, a knee gush is the "application of cold flowing water from the kneecap to the feet, applied in such a manner as to form a flowing sheet of water over the whole lower leg." (Baumgarten, 1904, p.7) The upper douche covered the chest, upper back, and arms, and the back douche was specific for the back and spine.

Figure 3. **Light & Water Cure Institute**


FIRST BROOKLYN

LIGHT & WATER CURE INSTITUTE,

346 SCHERMERHORN STREET, Between Nevins St. and Third Ave., BROOKLYN.

ESTABLISHED 1895.

LUDWIG STADEN, Naturarzt.

CAROLA STADEN, Graduate of Lindner's Hygienic Institute, Dresden, Germany.

Treatment of all chronic diseases by the entire combined method of Natural Healing, according to Priessnitz, Kneipp, Kuhne, etc. Light Therapy, according to Rickli and Dr. Gebhard, Berlin. Electric Light Baths, Swedish Massage and Gymnastics Thure-Brandt-Massage (internal Massage), the greatest success on the Healing Dominion of all female abdominal afflictions, viz.: Reposition of the uterus, etc. Diet Cures, Vegetarian, Saline (Nährsalz) Theory.

No Practising Medicines. No Operations.

An advertisement Staden placed in *The Kneipp Water Cure Monthly* indicated that he also utilized coaching and mentoring in vegetarianism in his practice. He suggests a vegetarian diet, avoiding stimulating drinks and foods. He also prescribed plantain tea, sleeping with an open window, and breathing through the nose



rather than the mouth. (Staden, 1900, p.14)

This extensive treatment plan for this asthmatic patient was to assist in eliminating the cause of asthma: the accumulation of morbid matter in the blood and the muscular fibers of the trachea.

Chronic Nasal Catarrh

For Mrs B. L., of Baltimore, MD, the problem of chronic nasal catarrh was attributed to an enduring head cold. Like in the case of asthma, Mrs B. L. was instructed to take a bed steam bath for 1½ to 2 hours in duration, followed by a cool sponge bath. However, she was to take these every day. Every morning, a good friction rub with a wet towel, and every evening, a throat compress and an abdominal bandage were prescribed. (Staden, 1900, p.31) The difference between an abdominal bandage and an abdominal compress is that a bandage involves wrapping around the body, while "compresses are merely poultices of coarse linen folded to several thicknesses, dipped into warm or cold water, well wrung and laid directly over the suffering parts, being covered with a woolen cloth." (Lust, 1903, p.318) The abdominal "bandage covers from the pit of the stomach to the middle of the thigh." (Kneipp, 1909, p.631)

The "abdominal bandage" was best done at night when patients were in bed, he advised. Bilz labeled the abdominal bandage as "the universal remedy." (Bilz, 1898, p.1678) This remedy, an exclusively cold water application, was used very frequently for many different conditions by the early Naturopaths.

We are familiar with the contemporary "neti pot" and "nasal lavage," to which, although not with that terminology, Staden refers when he recommends that "drawing water up the nose and frequent gargling" (Staden, 1900, p.31) would be beneficial. As in the case of asthma, the alternating foot bath was suggested 3 times a week.

Hay Hever

Another reader, Max from New Jersey, writes for help for hay fever. Staden defines hay fever as "catarrh of the bronchial tubes, nose and eyes [which] mostly attacks people who live too luxuriously." (Staden, 1900, p.127) His first course of action was a simple vegetarian diet and the elimination of alcohol, meat, and spiced foods. The water applications recommended were a bed steam bath for 1 hour, followed by a cool half-bath. A half-bath is taken in an ordinary bath tub "filled with cold water reaching up to the navel." (Lust, 1903, p.321) Staden advised a sun bath of 15 to 30 minutes' duration, considering this to be superior and more effective than a bed steam bath. Other water applications included a daily cool sponge bath and enema, and every other night an abdominal bandage. He also suggested gargling 3 or 4 times a day with water mixed with a little bit of lemon juice. Staden reminded his patient, as well, about the importance of sleeping with open windows and using breathing exercises. (Staden, 1900, p.127)

In the next issue, we will explore Ludwig Staden's suggestions for digestive complaints and expand our repertoire of water-cure applications.

*Bilz' German book was first published in 1888, and the English version was published a decade later.

Each morning, Staden's prescription entails a cold sponge bath followed by a friction rub.



Sussanna Czeranko, ND, BBE, a graduate of CCNM, is a licensed ND in Oregon. Sussanna is a frequent presenter, nationally and internationally. As Curator of the Rare Books Collection at NUNM, she is the author of *The Hevert Collection*, a 12-book series about naturopathic medicine, the ninth volume of which is now complete, *Mental Culture in Naturopathic Medicine.* Sussanna founded The Breathing Academy, a training institute for naturopathic doctors to incorporate a scientific model of breathing therapy called Buteyko into their practice. Her next large project is to complete the development of her new medical spa in Manitou Beach, Saskatchewan – *Manitou Waters Centre.* She is the co-founder of the International Congress on Naturopathic Medicine and the inaugural conference chair of the Healing Skies Naturopathic Medicine Conference, in Saskatchewan.

REFERENCES

Baumgarten, A. (1904). The knee douche. *The Naturopath and Herald of Health,* V (1), 7-10.

Bilz, F. E. (1898). *The Natural Method of Healing.* New York, NY: F. E. Bilz Publishing; Volumes 1 & 2, pp. 2046.

Kneipp, S. (1901). The half bath. *The Kneipp Water Cure Monthly,* II (1), 14-15.

Kneipp, S. (1909). Bandages and compresses. *The Naturopath and Herald of Health,* XIV (10), 624-632.

Lust, B. (1900). Announcement. *The Kneipp Water Cure Monthly,* I (10), 187.

Lust, B. (1903). Means of hardening for children and adults. *The Kneipp Water Cure Monthly,* IV (11), 313-322.

Staden, L. (1900). Hydropathic medical adviser. *The Kneipp Water Cure Monthly,* I (1), 14.

Staden, L. (1900). Hydropathic medical adviser. *The Kneipp Water Cure Monthly,* I (2), 31.

Staden, L. (1900). Hydropathic medical adviser. *The Kneipp Water Cure Monthly,* I (3), 46.

Staden, L. (1900). How Nature cures. *The Kneipp Water Cure Monthly,* I (7), 126.

Staden, L. (1900). Hydropathic medical adviser. *The Kneipp Water Cure Monthly,* I (7), 127.

Staden, L. (1900). Hydropathic medical adviser. *The Kneipp Water Cure Monthly,* I (11), 210.

Staden, L. (1901). Naturopathic adviser. *The Kneipp Water Cure Monthly,* II (11), 228.

Staden, L. (1902). What is Naturopathy? *The Naturopath and Herald of Health,* III (1), 15-118.





The Poets & the Generals

What They Knew About Professional Formation

DAVID J. SCHLEICH, PHD

When Napoleon and the Emperor of Russia met on horseback after a great battle just north of Moscow, the Emperor offered him a popular but bitter-tasting Russian ale as a gesture of good will during the temporary truce. In a matter of days Napoleon would be ensconced in the Kremlin but with the city empty around him. In this moment, however, Napoleon returned the greeting, and aware of his tall adversary, stayed on his horse even after the Russian has dismounted. He fell silent for a time before speaking. Napoleon's supply lines were dwindling and winter was settling in. Most of Russia's cities had already been ravaged by his war-weary troops. These same French conquerors had grown nervous, accustomed as they were to lightning success with new technology and fierce ambition. In any case, now the great leaders of the 2 armies were face to face overlooking a fertile valley, well above the blood and roar of the battle below, drinking beer. As he imbibed, Napoleon knew that around him the Russians were withdrawing to the Urals, leaving the French to occupy an empty city that the Russians would render inhospitable via scorched earth, fouled water, and poisoned food. The retreating Russians would, in the following early weeks of the grueling Russian winter, gradually surround the French invaders.

Napoleon's wars and his civil revolutions across Europe had changed the very fabric of that continent's civilization. The Emperor of Russia knew and feared these waves from the west. Yet, that same Russian warlord also knew that Napoleon was at a crossroads. Napoleon finally spoke: "And now what shall we become this winter, you and I?" To which the Russian, uncomfortable having to look up at his proud adversary, said, "We can, neither of us, go home yet, Napoleon, for many men have yet to die on this frozen ground." Napoleon replied, "I know this to be true, and it saddens the heart of France and the soul of Russia that it is so." What happened in the next 6 weeks changed the course of history.

Guarding the Gates

In terms of its medical education platforms and processes, the naturopathic profession has also come to a crossroads. Although decidedly less dramatic and lethal, it's not entirely different. I know that my analogy is stretched, but we are not unlike those Russians, steeped in our traditions, comfortable in our safe distances from the rapidly encroaching transformations to the primary healthcare landscape of these past 2 decades. But those transformations have made our detractors and rivals hungry, and they want to assail the walls of our city of Natural Medicine, adding the spoils to the biomedicine empire they have carved for the last 12 decades, especially since the days when Johns Hopkins, Harvard, Pennsylvania, and Michigan changed the paradigm of medical education in North America and, some years later, Flexner reported on how it was going.

What has brought them to our city gates? We have been hearing about their coming, and we must decide how and if we shall drive them back. They are making it necessary that we ask fundamental questions for the future. Do we embrace the storms which accompany integration while at the same time preserving the very core of naturopathic medicine, philosophy, and practice? Are we to fear these pretenders to the city of natural healthcare? The consortium of "integrative medicine" faculties and institutions is a very big foot in a big, big door. But if they take over the city of natural medicine, can they endure the winter ahead for them? Because their paradigm is so patently different, it is unlikely. Everything will change – intruders and the invaded.

Lessons from the Generals and Poets

Our educational leaders can find some comforting ideas in the face of such a wholesale threat to our traditions by taking a look at some of the great stories of transformation and leadership. Consider, for example, Kurosawa's classic film, *Ran*, in which an historically powerful warlord attempts to pass on his wisdom and authority as he ages, exactly at a time when pretenders and new lords with gleaming weapons appear in the valley, eager to pillage its riches. Ran chooses a successor to "keep the battle red with the blood of our wisdom and knowledge" on the basis of what he feared rather than by seeing well past the confusion of the battle before him. Ran's dilemma was that this battle was going to be fierce, like battles from long ago. Ran and Napoleon were both seeking a new strategy, a new paradigm for action in a very different world than they had heretofore known. Both knew too late that the old ways of victory would work no longer.

What a dilemma. Western literature is replete with such examples involving the management of unpredictable events in worlds that are changing inexorably fast. Ishmael, in *Moby Dick*, is consumed in his forlorn quest of an allegorical white whale. His task is to sort out the obsessive, consuming search of his leader, Captain Ahab. The forces in the once-familiar ocean are too strong, and the ship breaks apart. Ahab has to make sense, in that last fatal moment, of unpredictable events and new possibilities for co-existence and inner strength. He knows that had he acted sooner, with a greater understanding of what he was seeking and what the great fish was meant to teach him, neither he nor his men would have perished, and the vast, vast sea and the Great White Whale who was at home in that cacophony, would have been less enemy and more teacher.

Let us also consider Hamlet in this regard. Just as Hamlet was so contemplative, weighing one decision over another and still another over another, becoming frozen in incomplete action, so too the profession faces such a possibility unless it can galvanize its intuitive power and its accumulated wisdom. There is nothing new about the threat of assimilation. Since Flexner, we have had a systematic threat to our philosophy, our well-being, and our very political survival in a culture whose bureaucracies and empiricists do not fully understand us. We desperately need to incorporate – in a systematic rather than an anecdotal or sentimental fashion – the great knowledge of the elders of the profession into the current curriculum and pedagogy of our schools, into our evolving medicine, and into our intentions, so that these truths are not lost but rather become part of the foundation of the walls that protect our city from the true barbarians outside. We need to take that accumulated wisdom and incorporate its savvy into a strategy which not only protects where the profession has come from, but makes us strong in the face of where it needs to go. When the emperors of allopathic and naturopathic medicine meet to consider what lies just ahead, it won't matter that it's winter because we are comfortable and safe in our city. It is not our supply lines which will be stretched. We won't be looking to a long, deadly trek back to Paris in defeat. It's our city, after all.

An Assured Future

Henry V promised renewal for his troops at Agincourt, but not victory. Similarly, since there is no war if we choose not to fight in that way, so too the future of naturopathic medicine is friendly. Coordinated strategic effort among our agencies, schools, universities and colleges will keep the walls of the city strong. Just as Henry V, in the process of engaging in a most important historical movement and moment, announced to his tiny, powerful band of supporters that whether the battle was won or lost, renewal and reconstitution of the English was assured, so too will natural medicine colleges and universities bring high-quality graduate medical education framework to the landscape of primary healthcare and medical education in North America. As we all know, Henry prevailed in his great battle with far fewer troops than the perfumed, privileged French monarchy deployed to the battlefield. The French soon felt the power of Henry's political pioneers. The French, 2 centuries later in Russia, felt the power of patience and right positioning. So too shall the natural medicine professions prevail with its teachers and mentors. It will take setting aside old strategies, beginning with the educational advance guard. Patients know already.



David J. Schleich, PhD, is president and CEO of the National University of Natural Medicine (NUNM), former president of Truestar Health, and former CEO and president of CCNM, where he served from 1996 to 2003. Previous posts have included appointments as vice president academic of Niagara College, and administrative and teaching positions at St. Lawrence College, Swinburne University (Australia) and the University of Alberta. His academic credentials have been earned from the University of Western Ontario (BA), the University of Alberta (MA), Queen's University (BEd), and the University of Toronto (PhD).

The consortium of "integrative medicine" faculties and institutions is a very big foot in a big, big door.



OSTINOL™

(Cyplexinol®)

NOTHING GROWS MORE BONE & CARTILAGE TISSUE

Only Ostinol™ is proven to turn on stem cells and **grow *de novo*** bone and cartilage tissue

Only Ostinol™ is:

- **POWERFUL**
  - **Osteogenic and Chondrogenic Complex**
    - grows *de novo* bone and cartilage
- **FAST**
  - **Immuno-Modulating Effects**
    - works on IL-1 and IL-6
- **SAFE**
  - **Clinical Success in 1,000's of Patients**
  - **10 Years of Successful Use**



ZyCal Bioceuticals Healthcare Co.

Leaders in Natural Bio-Active Proteins

www.ZyCalBio.com • 888.779.9225

works in as fast as 7 DAYS!

*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.