

WINTER ISSUE 2002

# SCNM Newsletter

www.scnm.edu

A Quarterly Publication of Southwest College of Naturopathic Medicine

## THE NEW ENVIRONMENTAL MEDICINE CLINIC

Naturopathic medicine is based on relationships. In practice, patients partner with naturopathic physicians to combine personal commitment with knowledge and expertise. Naturopathic physicians plumb the interrelationships within an individual (mental, emotional and physical spheres), the relationships between a patient and food, the relationships between a patient and other human beings – in essence the many relationships between an individual and their environment.

More than ever before, naturopathic medicine needs to take the lead in not only defining the relationship between the environment and health, but also applying our general principles of toxicity and detoxification to this burgeoning problem. There is no profession better suited to tackle this problem than naturopathic medicine.

There is no institution more committed to creating a Center of Excellence in Environmental Medicine than Southwest College of Naturopathic Medicine. And there is no physician better qualified to head up our Environmental Medicine Center of Excellence than Dr. Walter Crinnion. Walter Crinnion, ND graduated from Bastyr University in 1982. His twenty years of experience treating and conducting research on diseases related to toxic environmental exposure, has put him at the vanguard of the Environmental Medicine field. Highly respected, both within the naturopathic and the allopathic professions, Dr. Crinnion will bring tremendous experience, passion and dedication to our school.

Dr. Crinnion will move to Phoenix next August. By then, he will have taught the second post doctoral training course, we will submit research grant applications, and will have the Environmental Medicine Clinic ready to see patients. It is our goal for the Environmental Medicine Center of Excellence to help increase public awareness of environmental influences on human health. SCNM will strive to join with public health departments, corporations and foundations to formulate public policy and put naturopathic medicine at the vanguard of this growing movement. We welcome input, assistance and opportunities to partner with all of you, our colleagues and friends.

The center will have four major objectives:

**1. Education.** To integrate the concepts of environmental medicine into our curriculum, thereby helping our medical students better understand the pathophysiology of environmental toxins and the treatment of conditions related to environmental influences.

**2. Healthcare.** Dr. Crinnion will be the medical director of a dedicated environmental medicine clinic. This green clinic

will be both environmentally friendly and hypoallergenic, and will provide outstanding patient care and outcomes research in environmental medicine.

**3. Research.** The center will collaborate with the Southwest College Research Institute and its partners including the Maricopa County Integrative Health System, the VA Medical Center, Arizona State University and the University of Arizona, and the National Institute of Environmental Health Sciences to conduct basic science and clinical research in environmental medicine.

**4. Post Doctoral Training.** To provide postdoctoral training for licensed physicians in Environmental Medicine. In this seventy-five hour program, Dr. Crinnion combines his talents and experience with that of other presenters to provide clinicians with the requisite information to properly identify and treat environmental illness. ■

For more info:

[www.scnm.edu/environmentalmedicine](http://www.scnm.edu/environmentalmedicine)  
Dr. Paul Mittman - President & CEO



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# Community Awareness



## MEDICAL CENTER NEWS

### FOOD & CLOTHING DRIVE

Beginning November 1, 2002 and running until January 1 2003, the College and Medical Center will be collecting clothing and canned foods for distribution to needy families. Boxes will be placed at both the College (2140 East Broadway) and the Medical Center (8010 East McDowell #111) awaiting your generous contributions. This is a great opportunity to clean out your closets and help alleviate hunger. For more information on how you can help, contact Lisa Fortunato at 480-970-0000.

### NEW CLINICAL SITE

The Southwest Naturopathic Medical Center will be opening a new extended site in conjunction with Hamilton Elementary School in Southwest Phoenix. Hamilton Elementary School, part of Maricopa County School District #21, serves students primarily from low-income families. The school is part of a sponsorship program by the greater Phoenix Rotary Club who fund and promote various programs for the students. Through the efforts of Mr. Barry Peretz, a family practice and pediatric clinic will be established beginning November 1, 2002. Under the direction of Dr. Matthew Baral, the student clinic shift will work in conjunction with Principal Patrick Higuera and Diana Walsh, RN to provide medical care to children and families in the Hamilton School District service area. Instrumental to developing this site has been Dr. Paul Mittman, whose involvement, along with Mr. Barry Peretz and the Phoenix Rotary Club, has made this opportunity possible.

### COLD & FLU SEASON TIPS

As the cold and influenza season is rapidly approaching, do not forget to take preventive measures to decrease your chances of getting this year's variation. Some suggestions:

- At the first signs of an impending cold or flu, stop all caffeine, salt, sugar, alcohol and heavy foods, while drinking lots of fluids.
- Eat small meals of soups, salads, fruits and vegetables as this will help make your system alkaline to fight off the virus and promote elimination.
- Take extra Vitamin C @ 3000 to 5000 mg per day in divided doses. As a preventive measure, begin taking Vitamin C now at about 2000 to 3000 mg per day.
- Take Flu Solution or Oscillococcinum as prescribed. These can be obtained at the Southwest Naturopathic Medical Center's, Medicinary or at a local health food store and some pharmacies.
- If an influenza vaccination is desired, the homeopathic preparation Influenzinum or Dolivaxil can be obtained at the Medicinary.
- For more information on available over-the-counter cold and flu products, please contact the Natural Medicinary @ 480-970-0001.

## WHAT'S NEW IN LITERATURE

### Non Dairy Source of Calcium -

In this article in the American Journal of Clinical Nutrition (1990;51:656-657) the absorption of calcium from milk was compared to that of kale. Mean absorption of calcium from the kale was 40.9% while from milk 32.9%.

- Comment: It has been our contention based on studies such as this that green leafy vegetables are one of the best sources of bio-available calcium that can be obtained. The exception to this may be spinach, which is high in oxalates, which can bind calcium. Milk, as we all know, is high in fats and contributes to arteriosclerosis and heart disease, thus not making it good for every body!

### Cows Milk Linked to GI Bleeding -

Fifty-two infants were randomly selected to receive either formula or pasteurized cows milk while their stools were examined for occult (hidden) blood. The group receiving the milk showed an increase from 3% to 30.3% within the first 28 days as compared to the formula group. The number declined after this time period but was still statistically significant compared to the formula group. (Journal of Pediatrics 1990;116:11-18)

- Comment: Cows milk is known to be highly allergenic and has been shown to cause bedwetting, asthma, eczema, infections, rhinitis or drippy nose, abdominal pain, fatigue, depression and of course, ear aches. It is also been demonstrated that a significant amount of iron deficiency in infants and children due to gastrointestinal bleeding is due to milk allergy. If you have to drink this stuff, better make it raw milk.

### Cooking & Nutrients -

In this article in The Physician and Sportsmedicine (Jan.1992 20:1), several methods of preparing and storing vegetables were compared to see which contributes to vitamin and mineral loss. It was found that vitamins B1, B2 and C were destroyed easily by cooking and that the longer vegetables were left in the refrigerator, the more nutrients were lost. Precut vegetables lost nutrients faster than ones left whole. Prolonged cooking, steaming and brief microwave preparation contributed to most of the nutrient loss while the best methods were stir frying, steaming and microwave preparation. Prolonged microwave cooking can cause significant loss. Saving water in which vegetables have been cooked can be used for soup bases and gravies.

- Comment: Sometimes I am really amazed at how much my grandmother knew without having a PhD or ever going to college! Most of this article strikes me as being a common sense approach to cooking and storage of vegetables. What is important is that the vegetables should be organically grown and as fresh as possible.



# Knowing Your Business

## ***BUSINESS PLAN COMPETITION***

October 11th, 2002, the winners were announced for the semi-annual business plan competition presented to bankers from the local area. The winners chosen from a tight race were Arlan Cage, Andrea Purcell and Nate Vitaro for their Ahwatukee Family Health naturopathic practice. The Business Plan Competition culminates the ultimate objective of the Business Practice Management course offered at SCNM for 14th quarter students, which provides the student the opportunity to feel, do their own research, and learn the processes involved in running and owning a naturopathic practice.

The participants are challenged to create a business plan for a naturopathic medical center from scratch and present it to local loan officers for feedback and review. The whole event is videotaped for the student to review themselves as well as for posterity and practice in presenting information to groups and professionals. The insight on how to create a business plan is essential for naturopathic medical students since eighty percent of all graduates own their own business or are part owner of a business. It is therefore critical for them to understand the basic rudiments of managing and owning businesses.

Arlan Cage, Andrea Purcell and Nate Vitaro narrowly edged out their competition for their analysis and research of demographics, suppliers as well as demonstrated knowledge of financial informa-



tion. It was that understanding of financial information that tipped the scales in their favor. This year's decision was difficult with many close choices. Runner-ups were, Ocotillo Natural Health Center, LLC by Nicole Barreda and Jane Hendricks and European Male Health Center by Angela Pinkhasova.

Regardless of the outcome of this competition the majority of the students come out of Business Practice Management 882 with a keen awareness of what it takes to run a naturopathic practice.

Photo: l. to r. Kris Lindeman, judge and loan officer from BNC Bank; Nate Vitaro, student; Arlan Cage, student; Andrea Purcell, student; Paul Mittman, N.D., president of SCNM. ■

*Joanna Hagan*

## ***CALENDAR OF EVENTS***

November 8: **Open House**  
Location: SCNM Main Campus, 8-5 pm

November 9: **Open House**  
Location: SCNM Main Campus, 9-1 pm

November 12: **Student Lecture Series**  
Topic: "Staying Healthy in a Toxic World"  
Location: Wild Oats Community Rm, Tatum & Thunderbird  
7-8:30 pm

November 14: **Off-Site and Clinical Faculty Thank You Reception**  
Location: SCNM Main Campus, 5:30-7:30 pm

November 18: **Student Lecture Series**  
Topic: "Brain Health and Aging"  
Location: Wild Oats Community Rm, Scottsdale & Shea  
7-8:30 pm

November 22: **Research Night**  
Location: SCNM Main Campus,  
5-9 pm

November 26: **Student Lecture Series**  
Topic: "Hormone Health & Women"  
Location: Wild Oats Community Rm, Tatum & Thunderbird  
7-8:30 pm

November 28 – December 1  
College Closed for Thanksgiving

December 15: **Graduation and Reception**  
Location: La Posada Resort in Scottsdale,  
2-5 pm

December 21- January 5  
College Closed for Holiday Recess



# The Value of Staying Connected



## ALUMNI FALL

**Staying connected with our students, faculty, staff and alumni is a vital part of the College.** The *Vital Force* is now delivered by electronic mail and large portions of class materials are accessible on-line to both students and alumni. Information technology is playing an important role in this endeavor.

### Did you know that:

- Alumni can register for and audit two free classes/academic year.
- The SCNM Library is available to you as an alumnus as long as you live here in the Phoenix metro area.
- The Career Center posts (on [www.scnm.edu](http://www.scnm.edu), under Campus Resources) employment opportunities, practices for sale, available office space for rent, and speaking and publishing opportunities.
- We are working with medical office and diagnostic equipment suppliers, Medicinary inventory software manufacturers, and insurance brokers to provide high quality goods and services for SCNM graduates. Information will be posted in future newsletters and on the SCNM website (under Alumni) as it becomes available.

### Upcoming Seminar:

- February 21-23, 2003. Peter D'Adamo, ND presents Blood Group and other Polymorphisms in Clinical Practice: New and rediscovered responses to traditional modalities and circumstances. Dr. Peter D'Adamo will be the keynote speaker at this weekend conference where he will elaborate on the practical aspects of implementing an individualized blood type program for the successful practitioner. Email [dadamo\\_seminar@scnm.edu](mailto:dadamo_seminar@scnm.edu) for more information on this exciting conference, which will be held on the SCNM campus.

**Please help us help you by staying in touch.** Send in your email, mailing address, phone numbers and other current information to [alumni@scnm.edu](mailto:alumni@scnm.edu). Please know that we respect your privacy and we do not give out personal information nor sell it to any entity.

Staying connected also lets us know how you are doing and how the College can assist you in your career. Your ongoing success is important to the College and to me personally. If there is any way that I can be of assistance, please don't hesitate to call or email me at 480-858-9100 ext. 232 or [p.mittman@scnm.edu](mailto:p.mittman@scnm.edu). ■

*Paul Mittman, N.D.*

## RESEARCH NIGHT

You are cordially invited to RESEARCH NIGHT at SCNM, Friday, November 22, 2002 from 5:30 PM – 8:30 PM  
2140 East Broadway Road, Tempe, Arizona 85282

Seating is limited so please RSVP to: [s.rouhani@scnm.edu](mailto:s.rouhani@scnm.edu)

5:30 PM - Food will be served & presentation posters available for viewing.

6:20 PM - **The Role of Naturopathic Research to the Future of Our Profession, CAM and the Natural Health Movement**

President and CEO of SCNM:  
Paul Mittman, ND, DHANP

6:45 PM - **Polyicosanal: A New Treatment for Cardiovascular Disease?**  
SCNM medical student: Mark Janikula

7:00 PM - **What is Homeopathy?**

Dolisos Chair of Homeopathic Medicine and SCNM Professor:  
Stephen Messer, ND, DHANP

7:15 PM - **Philosophy and Methodology of Homeopathic Proving**

SCNM medical students:

Arlan Cage, Linda Oksman, Dawn Eller, Jane Austin, Sarah Bedell

7:30 PM - **What is a Naturopathic Physician and Why Do We Need Them?**

Featured guest lecturer:

Dr. Kenneth J. Proefrock from Sun City, Arizona

8:30 PM - **Raffle of Prizes**





# The Environmental Medicine Center of Excellence

## MAJOR CAMPUS EXPANSION

### COMING NEXT ISSUE

The College will celebrate our **Ten-Year Anniversary** in 2003 with a major campus expansion. In the next SCNM Newsletter, we will outline some of the details for a new library and electronic learning center, a teaching kitchen, and classroom and laboratory renovations, along with plans for a reunion and groundbreaking celebration next fall.



### FACULTY ANNOUNCEMENT

Dr. Mona Morstein will be joining the faculty of SCNM this winter in the Clinical Services Department. She has been in private practice for 13 years in the town of Great Falls, Montana. Dr. Morstein graduated Summa Cum Laude in 1988 with a bachelor's degree in Foods and Nutrition from ASU. She graduated from National College of Naturopathic Medicine in 1988. Dr. Morstein earned her DHANP and currently serves as Secretary of the HANP.

In Great Falls, Dr. Morstein was on the local hospital Adult and Community Care board, had a weekly cable access TV show, and wrote bimonthly in the newspaper on alternative health topics. She frequently lectures to groups and at conferences. She has also performed stand-up comedy at the AANP conferences and is a published author of "*The Childhood of Sherlock Holmes*." She will be working both at the Clinic and teaching classes. ■

*Tim Schwaiger - N.M.D.*

## THORNE RESEARCH, INC.

Grabbing a pen, Al signed in big letters in the middle of the page "OK – Al Z", and said, "That's it, you have my word and my name, we're done." Flicking the signed proposal with one finger, Al slid it across the conference table, where it stopped in front of me.

After months of planning, emails and a morning of meetings, Al and Kelly Czap, founders and owners of Thorne Research, pledged \$500,000 to help create the new Environmental Medicine Center of Excellence at Southwest College of Naturopathic Medicine. We are deeply grateful to the leadership foresight and generosity of Thorne Research whose contribution is providing the seed money for the Center.

**THORNE RESEARCH, INC.** one of the most respected names in alternative medicine, is a company that demonstrates and embraces the values and principles that are consistent with the Environmental Medicine Center of Excellence. Thorne manufactures all of their products onsite, foregoing the flowing agents and other additives commonly used in the supplement industry.

Founded by Al and Kelly Czap in 1984, Thorne Research was the first company to exclusively use encapsulation as a nutrient delivery system, reducing allergenicity and absorption problems of tablet binders and excipients.

Our partnership with Thorne Research will be one of the four cornerstones in developing the Environmental Medicine program. With Thorne as the only nutraceutical company partner in this endeavor, other funding and development support will come from foundations, individuals and corporations outside of the alternative medicine field that support the environment and human health.

Bringing Dr. Crinnion, Thorne Research and Southwest College together is a major step in our school's growth and development. Southwest College exists to serve humanity by advancing naturopathic medicine.

Our success ultimately depends on the success of our graduates in helping people through patient care, research and education. Building an excellent faculty, partnering with great companies and academic institutions are a means of reaching the lofty goal of healing the sick. ■

*Dr. Paul Mittman - N.D.*



# Find Out What We're About



## ADMISSIONS CORNER

### STUDENT OPEN HOUSE

Interested in becoming a naturopathic physician? Attend a Prospective Student Open House, Friday, November 8, 8-5 pm OR Saturday, November 9, 10-1 pm.

The College's president, Dr. Paul Mittman, will kick off the day with a welcome and introduction to naturopathic medicine. The remainder of the day includes presentations on career opportunities, financial aid availability, admissions requirements, a Q&A panel with students, faculty and staff, and a tour of campus. Also scheduled are information sessions on acupuncture, botanical medicine, and homeopathy. Those attending on Friday will receive complimentary continental breakfast and lunch. Individual admission and financial aid advising will be available.

The Open House is a wonderful time to learn about Southwest College of Naturopathic Medicine, meet with students, faculty and staff, and explore the naturopathic profession. RSVP as soon as possible to 480.858.9100 or [admissions@scnm.edu](mailto:admissions@scnm.edu).

### ACAM CONFERENCE

Southwest College has been invited to participate in the New Advances in Complementary Medicine Conference sponsored by the American College for Advancement in Medicine (ACAM) November 8-10. Students have been asked to volunteer to assist in the conference. Dr. Konrad Kail will be speaking on Toxicification and Cancer, conference attendees will have the opportunity to tour the College and Medical Center, and SCNM will have an information booth at the conference. For further details about SCNM's involvement in the conference, contact Joanna Hagan at 480.858.9100 x 311.



## PHILOSOPHY DAY

Held in conjunction with the Blood Drive that was coordinated by Samm Robinson and Laura Kennedy on Friday the thirteenth (of all days), there was a plethora of products and services offered by our students. Reiki, massage, bean bag pillows made to your order, aromatherapy bath salts, tattoo's with henna, juicing and delicious food from brown rice to roasted corn and shish ka-bobs, all organic, totally tempted everyone until the early evening hours.

Even though a muggy day, Philosophy Day gave all of us a break from the grind and a chance to see other sides of our personalities. The open mike and the music completed the overall effect of a "happening " of alternative perspectives.

This school wide event was sponsored by SGA and implemented by many students that allowed students to set up tables of goods and services of their own businesses and offer massages and Reiki sessions. A special bonus was the opportunity to enjoy dunking some of our favorite faculty in the dunk tank. It was a close race but Dr. Mittman and Joanna Hagan tied at 16 attempts each. The proceeds from the dunk tank will go towards the SGA scholarship fund.

Overall, the college donated 20 pints of blood. At a time when the world around us seems to be experiencing extreme conflict and hatred, we set a wonderful example in coming together to celebrate diversity and community.

Philosophy Day fit our philosophy of whole body wellness, as did the concurrent blood drive. How uplifting it was to see our community turn out not only to have a good time but also to offer one of the most precious of resources to others, blood.

Plans are in the making to host Philosophy Day each year to provide an avenue of celebration, an opportunity for students and alumni to interact and learn from one another and provide a stress-relieving break during the first quarter of the year. Oh yeah, and it would allow the students the opportunity to give our favorite faculty a dunk in the tank, too.

Thanks to the hard work of Nancy Comeau, Beth Poindexter and Lois Eaton and Nancy's conception of Philosophy Day, an idea which she conceived, was a smashing success! ■

*Eli Camp and Joanna Hagan*



# Arizona's Microcapillary Bioreactor

## A STUDENT'S DREAM



### BUSINESS JOURNAL COMMENDS SCNM STUDENT FOR TAKING TECHNOLOGY TRANSFER TO A NEW LEVEL

Arizona State University has filed for a patent on a device that mimics the circulatory system of the body. It comes at a time when university officials are taking technology transfer to a new level. Called a **microcapillary bioreactor**, it was invented by ASU biology professor Dave Capco and student Shidfar Rouhani.

"Under the provisional patent, ASU already has circulated a disclosure statement to a variety of companies that might be interested in licensing this technology," Capco said. "If someone did license this technology from us, ASU would recover all the money it took to get the patent filed first. Then it would be divided more or less equally between the three parties: Shidfar, myself and the university."

Rouhani, 24, created the microcapillary bioreactor during his honors program as a bioengineering undergraduate student at ASU. He now is in the molecular and cellular biology graduate program at ASU and a medical student at the **Southwest College of Naturopathic Medicine** in Tempe.

Knowing that tissues growing in petri dishes eventually become surrounded by their own toxic waste, Rouhani wanted to create a device that would allow tissue to live in a natural setting similar to the human body. Inside the bioreactor, tiny porous microcapillaries mimic the function of blood vessels. Fragments of organs can be inserted, where these artificial blood vessels provide oxygen and nutrients to the tissue.

"He tested ovary fragments from mice, using them as a model system to understand human reproduction," Capco said. "He found if you took an ovary fragment from a mouse and put it in the device and monitored it over time, they ovulated on cycle. The eggs, for all appearances, are healthy eggs."

### WOMEN WITH CANCER

This technology could have a direct impact on patient care, Capco said. Women in the childbearing age who receive chemotherapy for cancer could become infertile or the chemotherapy could cause mutations with the eggs. Some fertility specialists have tried to surgically remove a woman's ovaries before chemotherapy and freeze them until treatment is completed.

The microcapillary bioreactor could change that, Capco said, because a piece of a woman's ovaries could be placed in the bioreactor until chemotherapy is completed. The device also has the potential to be used for research on other body parts. A slice of liver could be inserted into the device to test potential drugs for hepatitis. Brain slices also could be studied to assess biocompatibility of electrodes implanted into the brain.

### SHOOT FOR THE STARS

How can a 24-year-old student who also has an emergency medical technician license come so far so quickly? "My motto is to shoot for the stars, and if you get to the clouds you've done well," Rouhani said. "One of my goals is to open the first naturopathic hospital in Arizona."

As a child, Rouhani wanted to be a doctor. None of his toys were in working order because the moment he received them, he would take them apart to see how they worked. He has built several computers from scratch. "It's like putting a human together, almost, finding parts that are compatible," he said.

The only child of a chemical engineer and an X-ray technician, Rouhani and his parents fled to the United States from Iran when he was 10 months old because "Islamic fanatic Muslims" were targeting people of his religion, Baha'i. A naturalized citizen of the United States, Rouhani was investigated two or three weeks after the terrorist attacks on the World Trade Center last year because of his ASU project. They also wanted to know why he was taking rock climbing and Kung Fu classes. "I welcomed them in," he said. "They saw I wasn't going to be trouble and they thanked me ... I was glad they were doing it." *From the October 25, 2002 edition of the Phoenix Business Journal.*



# Home Treatments



## *INFECTION & THE IMMUNE SYSTEM*

Another treatment that has proven to be helpful in relieving pressure and pain is the onion poultice. Take an onion and slice it in half. The half that will be used can either be put into a microwave for a minute or two or heated in the oven for about 10 minutes. The onion should be tested for temperature by placing on the inner wrist of the parent. When the onion is not too hot but warm, place the cut side directly over the affected ear and stabilized with a bandage or handkerchief. The onion may be left on until it has cooled off completely or about twenty minutes.

In order to break up mucus that might be clogging up the eustachian tube, a steam bath is quite helpful. Run a hot shower and bring your child into the bathroom and close the door. The steam will help break up the mucus and encourage drainage. A humidifier may also be used in the child's room. It is very important to keep the humidifier clean because mold and bacteria may grow quickly inside, so it should be cleaned thoroughly once to twice a week. Grapefruit seed extract is an excellent disinfectant for the humidifier and can be purchased at most health foods stores. Several drops of the liquid may be added to the humidifier's water twice a week.

There are some foods that may cause a mild allergic reaction and result in inflammation of the tissues around the eustachian tube. Foods such as wheat, dairy, eggs, and corn are the most common allergenic foods, and investigation should be done to find out which foods are aggravating your child.

Dairy has been especially implicated in the causation of ear infections. If the child is breast-feeding, allergenic foods that the mother eats can also affect the child. Close observation of the baby's health while mom eats certain foods may help uncover hidden causes of ear infections.

Supplementation of certain nutrients can help boost the immune system and break up mucus that may contribute to an ear infection. Vitamin C is a strong antioxidant and can help with fighting infections. A good rule is 500mg per year of age per day. An easy way to get these amounts into a young person is using the "Emergen-C" packets, which have 1000mg per packet. The packet can be mixed in water or juice. N-acetyl cysteine (NAC) is an amino acid that can help thin mucus. 400-800mg of NAC per day can be taken as capsules or opened and mixed into food for younger patients.

Zinc lozenges have also been shown to be effective in fighting infections, especially those in the throat area. An equivalent of 2.5mg per year of age per day may be used. Vitamin A is critical for a well-functioning immune system, and it is believed to specifically help the mucous membranes protect from infections. Up to 15,000 IU may be used per day. Avoid the synthetic water form of retinol, as it is the most toxic. It is important to note that the chronic use of these supplements at the therapeutic levels mentioned here should be discontinued after symptoms have resolved.

Many parents have questions about how to alleviate pressure in their children's ears while flying. During the swallowing process, muscles in the back of the throat open the eustachian tube. It is therefore important to encourage the child to continuously breast-feed or bottle feed during takeoff and landing.

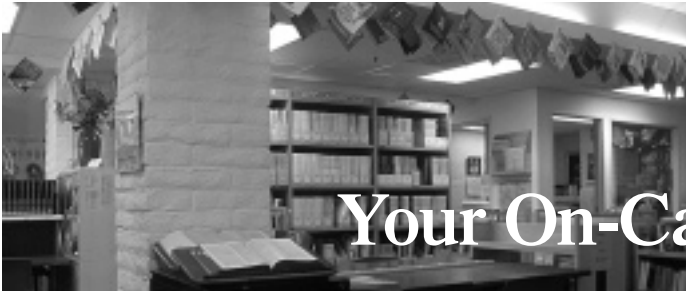


Even though parents feel relieved when their child has fallen asleep and is not disturbing anyone, it would be wise to wake them during the descent just to feed. Since the air is very dry on a plane, you may also keep a washcloth dipped in warm water close to the baby's nose to humidify the air they breathe in.

If your child seems very sick and has the signs of a more serious infection as mentioned above, these treatments are not adequate and a visit to the hospital is warranted. ■

*Matthew Baral, ND*





# Your On-Campus Resource Center

## *SIGNS AND SYMPTOMS OF PROGRESSIVE GROWTH*

On most days it's easy to see that the SCNM Library is busier than ever, and in fact our monthly statistics coincide with this statement. For example, comparing September 2001 with September 2002, in September 2001 we had an average of about 110 people in the Library per day, an average check-out of 115 items at any one time, and the Library staff was asked for some kind of assistance (other than routine circulation matters) an average of twenty-seven times per day. But in September 2002 we averaged 150 visitors per day, 200 items checked out, thirty-seven requests for information or assistance.

Over the past three years, the Library's book collection has increased at a rate of at least ten percent per year, and we now have over a hundred circulating videos (as opposed to none previously). Also impressive, during this same period both the Audio Shelf collection and our journal collection have more than doubled.

In September 2001, the Library had just six user computer workstations, five of which were equipped with high-speed Internet access, whereas today we have twelve workstations, all with the high speed Internet access, superior maintenance (thank you, Chris McGhee), and an expanding workstation software library. Besides our 1,000+ Internet Explorer Favorites that were added in 2001 along with many with full-text journal article resources, the Library now has Blackboard 5 and (on two workstations) Pharmacology 2000.



In cooperation with the Research Department's initiative and joint funding, we plan to get the program *Endnotes* shortly, which should greatly simplify the detailed work of compiling scholarly citations with research articles submitted for publication.

The Library is also planning next year to upgrade our journal indexing and article-retrieving service Alt-Health Watch, so that it will then be available in an up-to-date form not only from its present five library workstations, but also on the Internet.

Another very striking change has been accomplished with the Library's cataloging. Over the past three years, the SCNM Library has also gone from only one user workstation to an extremely useful Web-based catalog. The Library's catalog now contains 5,000 main bibliographic records and 7,750 item records, which show also different copies and volumes of single bibliographic titles. Altogether, the catalog now shows the following entries: 5,700 authors and 7,700 subjects, also with 2,500 cross-references, most of which are for 7,700 subject headings. According to our software, the catalog contains 10,000 different keywords and has a total in the keyword index of 52,000 items, which included the keywords that are repeated.

The most effective way to search the Library's catalog is to utilize the "Catalog Browse" or the "Catalog Search" feature on the Website.

**"CATALOG BROWSE"** makes the basic, traditional kinds of library catalog search options available--options such as Author, Title, Subject, and Series. **"CATALOG SEARCH"** makes possible computerized search strategies similar to the typical Web search engine.

- Look for the SCNM Library catalog at [www.library.scnm](http://www.library.scnm) or under "Academics" or "Campus Resources" at [www.scnm.edu/college](http://www.scnm.edu/college).

- Residents of the Phoenix Metropolitan area are welcome to utilize the library resources available at Southwest College by purchasing a community borrower's card for twenty dollars per year.

- For additional questions or comments regarding the Library please email [b.stansfield@scnm.edu](mailto:b.stansfield@scnm.edu) or call 480-858-9100. ■

*Dr. Bryan Stansfield*



# Understanding Ear Infections



## PEDIATRICS AND ANTIBIOTICS

One of the most common reasons parents bring their children to pediatricians is the suspicion that an ear infection has developed. The irritability, the decrease in feeding, maybe a fever, and the inevitable tugging at the ear. Common medical practice today includes antibiotics and when repeated infections occur, ear tubes may be surgically implanted. There are many factors that play into the development of ear infections. By addressing the major factors, you might be able to prevent many a sleepless night for yourself and your child.



### HOW THE EAR WORKS

First, we should discuss the structure and function of the ear and its surrounding structures. Going in from the outside, we travel through the external auditory canal to get to the eardrum or tympanic membrane. Behind the eardrum there is an opening (known as the middle ear) where three small bones attach from the back of the eardrum to the inner part of the ear, where sounds are processed and balance is monitored. The middle ear has essentially one opening to the outside world, which is the eustachian tube. This tube opens into the back of the throat, allowing any fluid that accumulates in the middle ear to drain out. Directly above the eustachian opening exist tonsils, termed adenoids.

**The most common ear infections occur in the middle ear**, and several factors are responsible for this. At birth, our eustachian tubes are short and wide. This provides easy access to all the bacteria and viruses we are exposed to from the throat. Adenoids may

become enlarged due to allergy or infection and obstruct eustachian drainage. In addition, some of the foods we eat can cause an allergic response resulting in inflammation of the tissues around the eustachian opening. This particular fact has led to the trend of feeding babies in as much of an upright position as possible in order to prevent chronic infections.

**Allergies pose yet another threat to a child's ear.** When we react to allergens, tissues become swollen. In small areas like the middle ear, fluid forms as a result of this swelling. The combination of fluid and a swollen eustachian tube makes for a great breeding ground for germs, and an ear infection often follows. Certain foods, pets, cigarette smoke, mold, pollens, trees, or grasses may cause allergies.

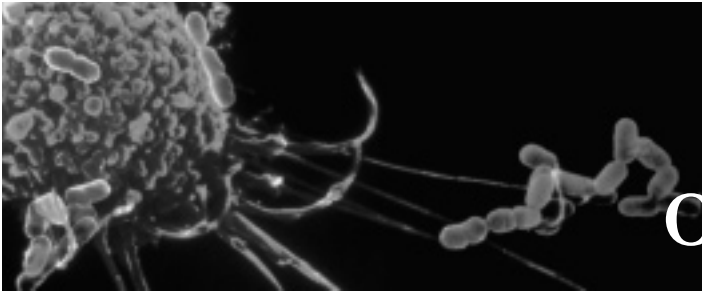
As we grow older, our eustachian tubes begin to elongate and narrow along with our head, resulting in fewer problems with the middle ear later in life.

### COMPLICATIONS

If an ear infection becomes severe enough, there are some complications that may manifest. When the pressure behind the eardrum can't be equalized because of a swollen eustachian tube, the eardrum may tear. At this point, the fluid behind the ear will escape to the outside, and the child will feel some relief. When this occurs some discharge may be seen draining out of the ear. This is not a medical emergency, but it is important that a physician sees the child so that they may be examined. **It is unwise to put anything into the ear such as eardrops.** The eardrum heals by itself within about a month.

Mastoiditis is an infection of the small air spaces in the bone behind the ear. If your child develops this condition, he will often have a fever and a very tender reddened area behind the outer ear. This area may be inflamed and even displace the ear forward. It is certainly not a common condition, especially in children under two years because the air spaces in the bone have not fully formed yet.

However, if you suspect that your child has mastoiditis, they need to be taken to the hospital immediately as the infection may become more severe leading to meningitis or an inflammation of the covering of the brain. Meningitis is a medical emergency and needs to be seen by a physician immediately.



# One Word: Prevention

## BACTERIA VS. VIRUS



### PREVENTION

Studies show several factors that affect predisposition to ear infections. Breast-feeding is by far one of the most important. Children who are breast-fed have less ear infections, less development of cough and wheezing, less episodes of diarrhea, overall less sick-baby medical visits, and fewer respiratory infections. Breast milk has two beneficial properties: 1) Breast milk contains zinc, which plays a major role in immune system function and has infection fighting properties itself, 2) Breast milk has high levels of antibodies, which help inhibit bacteria and viruses.

Exposure to second-hand smoke, especially cigarette smoke, seems to be a contributing factor. It seems to encourage the attachment of germs to our mucous membranes, creates inflammation, and decreases the drainage of the middle ear.

Foods such as cow's milk, wheat, eggs, peanuts, soy, and corn have all been shown in research studies to be the most common foods we react to. Even consumption of these foods by the mother may affect the breast-feeding child. Avoiding solid food introduction and feeding solely on breast milk until 6 months of age is another protective measure parents can take. Children who followed this pattern had less eczema and allergies later in life.

### ROUTINE TREATMENTS

Doctors today often indiscriminately prescribe antibiotics when a child presents in the office with an ear infection. This poses a prob-

lem for several reasons. Antibiotics only help treat infections due to bacteria. A large portion of ear infections are caused by viruses. A major concern over routine administration of antibiotics is the possibility of creating resistant strains of certain bacteria in our society, which could eventually render many of these medicines useless. When antibiotics kill bacteria, they are not selective. The beneficial bacteria of the intestines are susceptible to antibiotics, and when they are eliminated, diarrhea may ensue and lead to an increased frequency of future infections. If an ear infection is left untreated, it usually resolves on its own. Pediatricians in Europe usually wait several days to prescribe an antibiotic after diagnosing an ear infection. The research has shown that when this technique is used, the infections take the same amount of time to resolve as when giving antibiotics right away.

Physicians can suggest the surgical insertion of tympanostomy tubes (ear tubes), for children, who have repeated bouts of ear infections. These tubes are placed into the eardrum in order to relieve pressure in the middle ear and provide another route of drainage for fluid. This procedure is suggested out of concern that a child will have developmental delays due to hearing impairment. However, it has been shown that the placement of these tubes do not improve developmental outcome.

In addition, the inherent risks of surgery such as undergoing anesthesia and uncontrolled bleeding make this option unattractive to many parents, and the long-term effects on the eardrum are not known. Addressing causes such as food intake and immune system status of the child can usually take care of chronic problems of the ear and the avoidance of this often unnecessary surgery.

### TREATMENTS AT HOME

There are many treatments at home, which can treat the symptoms of an acute ear infection. Naturopathic eardrops have been shown to be just as effective as anesthetic eardrops. The eardrops should contain some combination of St. John's Wort (*Hypericum*), Mullein (*Verbascum*), Garlic (*Allium*), and Calendula. Warm the oil beforehand by putting the bottle in a pot of warm water and let it sit for a while. Then test the temperature by putting a drop or two on your wrist. Have the child lay with the affected ear up and put two to three drops in the affected ear and massage the outer ear gently to encourage the drops to reach the eardrum. Do not use eardrops if there is discharge from the ear.

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