



Northwest Chapter Newsletter

Winter 2003/04

American College of Sports Medicine

Think Twice Before Jumping on the Low Carbohydrate Bandwagon

by Katherine A. Beals, Ph.D., R.D.

It's hard not to be tempted to try it. You've heard testimonials touting it. You've read magazine articles supporting it. Even your friends have raved about it. So, maybe a low-carbohydrate diet can help you shed those extra pounds. Before you banish breads, forsake fruits, and evict vegetables from your kitchen, there are a few things you should know about the currently popular low-carbohydrate diets. First, the premise upon which these diets were developed is somewhat simplistic and often wrought with half-truths. Second, the diets are nutritionally unbalanced, which, over time, can lead to nutritional deficiencies and other nutrition-related health problems in those who strictly limit their food intake. Finally, despite the apparent abundance of testimonials, little scientific evidence supports the effectiveness of low-carbohydrate diets for losing weight and keeping it off.

Low-Carbohydrate Diet Basics

While there are a myriad of low-carbohydrate diets on the market today, the basic idea behind all of them is carbohydrates make you fat. Indeed, proponents of low-carbohydrate diets often claim that the current obesity epidemic can be traced to American's consumption of carbohydrates. Specifically, carbohydrate-bashing diets are based on the premise that carbohydrates cause blood insulin levels to surge, which in turn stimulates fatty acid synthesis and fat storage; i.e., weight gain. Conversely, removing carbohydrates from the diet and replacing them with protein and/or fat will cause a decrease in insulin (and an increase in the production of the opposing, catabolic hormone glucagon), thereby promoting the breakdown of stored fat; i.e., weight loss. While there are elements of truth in the above depiction, it is a

gross oversimplification of the complex and intricate workings of human metabolism. Carbohydrate intake does stimulate insulin production, but so does protein intake and, to a lesser extent, fat intake. In fact, any time you eat, insulin will be produced. Moreover, while a pure protein meal will cause a decrease in the insulin-to-glucagon ratio, insulin still predominates. The only situations in which glucagon levels in the blood will exceed those of insulin is when you are fasting or exercising. Finally, the picture of human metabolism painted by carbohydrate bashers fails to highlight insulin's many other important functions. As an essential anabolic hormone, insulin promotes amino acid uptake and protein synthesis (important to those interested in increasing or even maintaining muscle tissue), carbohydrate uptake and glycogen synthesis (important to those who exercise), and regulates blood sugar levels.

So Why Do People Claim to Lose Weight?

But you've read and heard the testimonials of those who have lost weight following a low-carbohydrate diet. How can millions of people be wrong? Truth be told, low-carbohydrate diets often do promote weight loss, at least over the short-term, but not for the reasons you may think. By removing carbohydrates from the diet, you are basically eliminating four of the six food groups represented by the food guide pyramid (i.e. (1) breads, grains, cereals, rice, pasta, (2) fruits, (3) vegetables, and (4) dairy products). What's left are the meats, poultry, fish, and the fats/oils groups. With so few choices, food intake naturally declines. Indeed, the idea of eating "as much protein and fat as you want" sounds good until you put it into the context of actual food. Realistically how many eggs can one person eat day after day, especially if they cannot be accompanied by toast or juice? Thus, people lose weight on low-carbohydrate diets, not because of any alteration in

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Northwest Region Newsletter

Winter 2003/4

NWACSM Mission Statement:

It is the mission of the Northwest Chapter of the American College of Sports Medicine to provide educational opportunities for professional development in exercise science and sports medicine and to be a resource for the general public regarding sports medicine and health and fitness issues.

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Newsletter Submission Deadlines

Issue	Deadline
Spring	March 18, 2004
Summer	July 16, 2004

The ACSM Northwest Region Newsletter is produced by Henriette Heiny, Ph.D., FACSM, Director of the International Institute for Sport and Human Performance, University of Oregon. Members of the ACSM Northwest Region are invited to submit contributions to the newsletter.

NWACSM information can also be seen on the Internet, URL: <<http://northonline.northseattle.edu/nwacsm/>>

NEW URL

President's Message

It's hard to believe that the fall semester is almost over and the holidays are looming. Fall has been a busy time for the Executive Board and spring will provide exciting opportunities for you, the members. The first order of business is to welcome back Henriette Heiny as editor of the NWACSM newsletter. Henriette's professionalism and vision are well known and we are looking forward to her enhancing the newsletter's role as an essential information and communication link for the chapter. However, it is essential that you take advantage of this resource and contact Henriette with ideas for stories, information about meetings, seminars and workshops, accolades, and/or issues that should be brought to the attention of the membership. Your input is essential to the vitality and utility of the newsletter. Speaking of vitality within the organization, in this issue you will find biographies and mission statements from candidates for a variety of positions on the Board. We are very pleased that such a talented and diverse group of candidates has made itself available and I would like to urge everyone to take an active part in the operation of the chapter by exercising your right to VOTE! Input from the membership is most important in maintaining the integrity and viability of the organization, so please take a hand in shaping the future of the NW chapter. I would also like to urge you to consider running for a Board position. It is an excellent chance to gain administrative experience, shape policy, and contribute to professional growth in the region.

For many of us, the annual chapter meeting is the professional focal point of the winter. The up-coming meeting in Seattle looks to be another enlightening and stimulating gathering. Details can be found in this issue. In addition, a wide range of other continuing education offerings throughout the region are listed. With the burgeoning interest of the general public in so many areas in which we work, including "low-carb" diets, childhood obesity, ergogenic aids, and healthy aging, up-dating our knowledge base is necessary if we are to continue to provide accurate and reliable information as professionals. Besides, it's always fun to learn something new. A little further down the road, make sure that you mark you calendars to attend the national meeting in Indianapolis in June. This is shaping up to be a great finish to the 50th anniversary year of ACSM.

On behalf of all members of the Executive Board I would like to wish everyone a safe and enjoyable holiday season and I look forward to seeing and hearing from as many of you as possible in Seattle in March.

—Peter Harmer, Ph.D., NWACSM President



Upcoming Events

NWACSM Annual Meeting Program

March 5 and 6, 2004

Seattle Pacific University, Seattle, WA

Body Composition in Health & Human Performance: Assessment, Significance, & Management

What about fat? What about muscle? What about bone?

The program will provide up-to-date perspectives on each of these body components with respect to:

- The validities and feasibilities of available assessment techniques
- The significance or importance for health and performance
- The malleability of each and the best practices for management

Can the common wisdom that less fat and more muscle are good for both health and performance truly be generalized? If so, what are the exceptions to the rule? What are the best practices for pursuing desirable changes in body composition? The meeting will explore these and other related issues.

Program

The conference program will be available online in mid-December at the Chapter homepage <http://northonline.northseattle.edu/nwacsm/>. The opening will be just after noon on Friday, March 5, and sessions will continue through Saturday afternoon. The online program will give you biographical information as well as final session titles times.

The program will include:

Jack Berryman, PhD – University of Washington School of Medicine: Medical History & Ethics, ACSM Historian—*The First 50 Years of the ACSM*

Barbara Drinkwater, PhD – retired, Past-President of ACSM—*The Significance of Bone Density in Health and Human Performance*.

Upcoming Events



Paul Ernsberger, PhD - Case Western Reserve University School of Medicine: Pharmacology, Neuroscience, and Nutrition – *Adiposity, Muscularity, and Health*

Kathy Gunter, PhD – Oregon State University: Bone Research Laboratory – *Preserving Bone Density*

Kerry MacKelvie, PhD – University of British Columbia: School of Human Kinetics – *Assessment and Development of Bone*

Melinda Manore, PhD – Oregon State University: Nutrition – *Health Effects of Atkins and Other Diets*

Janet Peterson, PhD – Linfield College: Exercise Science – *Body Composition and Immunity*

Bill Ross, PhD – retired, Rosscraft— *Assessment of Body Composition*

Brent Wisse, MD –University of Washington School of Medicine: Metabolism Endocrinology & Nutrition— *Body Composition and the Metabolic Syndrome*

Jack Wilmore, PhD - retired, Past-President of ACSM – *TBA*

Other speakers will be announced to the online program.

Registration

Pre-registration will be available online at <http://northonline.northseattle.edu/nwacsm/> in mid-December. Fees will be unchanged for the fifth straight year:

	Early (by 2/16/03)	Regular (after 2/16/03)
NWACSM Members		
Students	\$30	\$40
Professional (ACSM members)	\$65	\$75
Professional (non-ACSM)	\$80	\$90

Non-Members of NWACSM

(includes NWACSM annual membership for 2004)

Student	\$45	\$55
Professional (ACSM members)	\$95	\$105
Professional (non-ACSM)	\$110	\$120

Continuing Education Credits

CECs will be applied for through the American College of Sports Medicine.†

Accommodations

A group of rooms will be held for \$79 by the Hampton Inn Down Town, which is near Seattle Center at 700 5th Avenue North. The hotel provides a free shuttle. Hot and cold breakfast and internet access are among the services. Reserved rooms will be available by mid-December and be held until February 3, 2004. Thereafter, the same rate stays in effect on available rooms. For reservations call (206) 282-7700 after December 12, 2003.



ACSM's Health & Fitness Summit April 14-17, 2004

Renaissance Orlando Resort at SeaWorld

Join health and fitness professionals from around the world as they come together to learn the latest in health and exercise programming. As a special feature this year, Edward T. Howley, PhD, FACSM, will present a once-in-a-lifetime 50th anniversary lecture. It will encompass the field of exercise science, including ACSM's massive contribution of data to the field and will include delightful personal perspectives from this very special member, leader, and volunteer. Walter Bortz, MD., will inspire the audience in one of the opening keynotes entitled "Disease Costs: Fitness Saves." Dot Richardson, M.D., presented by the President's Council on Physical Fitness and Sports, will lecture on how to take the fitness message beyond the gym and into everyday life with: "Take the President's Challenge for a Healthier U.S." Early birds can still gain the most significant discounts if they register before January 1st. See the ACSM Web Site <www.acsm.org/meetings/summit.htm> where you can register for the meeting and learn of the latest programming updates. To receive a copy of the Advance Program in late fall, contact <akrug@acsm.org>.

ACSM 51st Annual Meeting Celebrating 50 Years of Science and Medicine June 2-5, 2004 Indianapolis, Indiana

Calendar at-a-Glance

Tuesday, June 1

Registration opens at noon
Pre-Conference (evening)

Wednesday, June 2

Joseph B. Wolfe Memorial Lecture (*Nerves and Blood Flow to Contracting Muscles*. Michael J. Joyner, Mayo Clinic, Rochester, MN.)
Scientific/Clinical Sessions
Exhibit Hall opens (evening)
Student Colloquium (evening)
Welcome Party (evening)

Thursday, June 3

Fun Run
President's Lectures
Scientific/Clinical Sessions

Exhibit Hall
Business Meeting
Regional Chapter Events (evening)
Interest Group Events (evening)

Friday, June 4

D.B. Dill Historical Lecture (*The Accomplishments of ACSM Over the Past 50 Years: An Historian's Perspective*. Jack Berryman, FACSM University of Washington, Seattle, WA.)

Scientific Clinical Sessions

Exhibit Hall

New Fellow Reception (evening –invitation only)

Cocktail Reception and Awards Banquet (evening)

Saturday, June 5

President's Lectures

Scientific /Clinical Sessions

Board Meeting (begins)

Sunday, June 6

Board Meeting (continuation)

PT Aide Workshop

University of Oregon, Eugene

International Institute for Sport and Human Performance

Friday, February 6 and Saturday, February 7, 2004
Registration Deadline, January 23, 2004

The course will provide introduction and early skill building to strengthen an individual's resumé prior to entering the PT aide job market.

Specific to the State of Oregon, an individual needs "on-the-job" training of 40 hours in a PT practice to become a board-certified PT Aide. Although this course does not count toward these 40 hours of preparation, it covers many aspects of the training that would be given on the job. It serves as an ideal foundation from which to enter a PT environment as a non-certified aide.

The class is limited to 30 participants. Registration is open to students and the professional community on space-available basis. Workshop fee is \$250. Students with valid student ID, \$195. NATABOC Approved Provider P737 (11 CEUs).

You may download a brochure from <<http://www.uoregon.edu/~iishp/PTAide.html>>. For more information call (541) 346-4114 or send a note to <rlt@uoregon.edu>.

Upcoming Events



20/20 Lifestyles Clinic (Bellevue, WA) continuing education offerings

The 20/20 Lifestyles Clinic offers between 60-80 hours of ACE accredited continuing education courses for fitness professionals as well as the general public. Courses are designed to educate each participant on the pathophysiology, treatment, and exercise programming associated with various special populations.

Continuing Education Training Schedule 2004

Thursday, Jan. 22	1pm-3pm	Metabolic Diseases (Obesity & Blood Lipid Disorders)	(0.2)
		Instructor: Mike Zlateff, MS	
Thursday, Jan. 29	1pm-3pm	Special Cases (Working with Disabilities)	(0.2)
		Instructor: Carl C. Swedberg, C.S.C.S.	
Saturday, Feb. 7	9am-1pm	Standards of Care for Hypertension (0.4)	
		Instructor: Dr. Mark Dedomenico	
Date not set (probable for Feb. 22)		ACE Practical Training	(0.8)
		Instructor: Barbara Pilcher (ACE Master Practical Trainer)	
Thursday, March 4	1pm-3pm	Current Trends in Behavior Modification	(0.2)
		Instructor: Bill Cooper, LICSW	
Thursday, March 18	1pm-3pm	Understanding the Basics of Nutrition	(0.2)
		Instructor: Mary Mach, M.S., R.D.	
Saturday, April 3	9am-1pm	Foot Biomechanics and Rehab Principles	(0.4)
		Instructor: Rim Veitas, MPT	
Thursday, April 15	1pm-3pm	Principles, Materials, & Types of Athletic Shoes & Orthotics	(0.2)
		Instructor: J. Mari Adad, D.P.M.	
Tuesday, May 4	1pm-3pm	Principles of Training and Program Design	(0.2)
		Instructor: Mike Zlateff, MS	
Saturday, May 15	9am-1pm	Knee Biomechanics and Rehabilitation Principles	(0.4)
		Instructor: Rim Veitas, PT	
Tuesday, May 25	1-3pm	Hip Anatomy & Post Rehab Exercises	(0.2)
		Instructor: Rim Veitas, PT	
Thur-Fri, June 24-25	8am-5pm	ACSM Health/Fitness Instructor Workshop	(1.8?)
		Certification Director: Mike Zlateff	
		*PRO employees responsible for cost	
Saturday June 26	8am-7pm	ACSM Health/Fitness Instructor Exam and Practical	
		Certification Director: Mike Zlateff	
		*PRO employees responsible for cost	
Saturday, Aug. 21	9am-1pm	Back Biomechanics and Rehabilitation Principles	(0.4)
		Instructor: Rim Veitas, PT	
Saturday, Sept. 18	9am-1pm	Shoulder Biomechanics and Rehabilitation Principles	(0.4)
		Instructor: Rim Veitas, P.T.	
Thursday, Sept. 30	1pm-3pm	Asthma and COPD	(0.2)
		Instructor: Carl C. Swedberg, C.S.C.S.	
Thursday, Oct. 7	2pm-4pm	Understanding the Basics of Nutrition	(0.2)
		Instructor: Mary Mach, M.S., R.D.	
Date to be determined	9am-1pm	Standards of Care for Diabetes Mellitus	(0.4)
		Instructor: Mark Dedomenico, MD	
Date to be determined	9am-1pm	Chronic Fatigue and Fibromyalgia	(0.4)
		Instructor: Dr. Mark Dedomenico	
Nov. 11-12	8am-5pm	ACSM Health/Fitness Instructor Workshop	(1.8?)
		Certification Director: Mike Zlateff	
		*PRO employees responsible for cost	
Nov. 13	8am-7pm	ACSM Health/Fitness Instructor Exam and Practical	
		Certification Director: Mike Zlateff	
		*PRO employees responsible for cost	

- **Course dates and times are subject to change and space is limited.** Therefore, individuals interested in receiving CECs must register at least one week prior to each course to reserve a seat.
- Each course is \$18.00 per 0.1 CEC.
- For more information or to register contact Carl Swedberg (425) 861-6211x 7451 or Mike Zlateff at (425) 861-6213
20/20 Lifestyle Clinic, 4455 148th Ave. NE, Bellevue, WA 98007, Carl Swedberg: cswedberg@proclub.com



ACSM Certifications

ACSM Certification is available to any professional within the preventive and rehabilitative exercise field who meets the established prerequisites.

Once certification has been earned, practitioners are reviewed every four years to ensure ongoing competence and that the ACSM's high level of standards are maintained.

The ACSM Exercise Specialist®

is a healthcare professional certified by ACSM to deliver a variety of exercise assessment, training, rehabilitation, risk factor identification and lifestyle management services to individuals with or at risk for cardiovascular, pulmonary, and metabolic disease(s). These services are typically delivered in cardiovascular / pulmonary rehabilitation programs, physicians' offices or medical fitness centers. The ACSM Exercise Specialist® is also competent to provide exercise-related consulting for research, public health, and other clinical and nonclinical services and programs.

Minimum Requirements

- A bachelor's degree in an allied health field* from a regionally accredited college or university (one is eligible to sit for the exam if the candidate is in the last term of their degree program); AND

- Minimum of 600 hours of practical experience in a clinical exercise program (e.g., cardiac/pulmonary) including exercise testing; AND
- Current certification in Basic Life Support (BLS)

* Examples: Nursing, Occupational Therapy, Physical Therapy, Physician Assistant, Physical Education, Exercise Science, Kinesiology, Kinesiotherapy, Physiology, Biology, Exercise Physiology and Human Performance.

The Health/Fitness Instructor certification

provides professionals with recognition of their practical experience and demonstrated competence as a leader of health and fitness programs in the university, corporate, commercial or community settings in which their clients participate in health promotion and fitness-related activities.

Minimum Requirements

- An associate's degree or a bachelor's degree in a health-related field* from a regionally accredited college or university (one is eligible to sit for the exam if the candidate is in the last term or semester of their degree program), AND
- Possess current adult CPR certification

* Examples: Nursing, Occupational Therapy, Physical Therapy, Physician Assistant, Health Care Administration, Physical Education, Exercise Science, Kinesiology, Kinesiotherapy, Athletic Training, Physiology, Sports Management, Biology, Exercise Physiology, Human Performance, Health Science, Recreation Management/Science, and Nutrition.

2004 ACSM Northwest Region's Certification Schedule

	Wrkshp Dates	Certification	Early Bird Deadlines	Deadline
ACSM Health/Fitness InstructorSM				
Seattle Athletic Club, Seattle, WA	Feb 25-27	Feb 27-28	Dec 15, 2003	Jan 01, 2004
IISHP, University of Oregon, Eugene, OR	None	Apr 16-17	Feb 15, 2004	March 01, 2004
PRO Sport Club, Bellevue, WA	Jun 24-25	Jun 26	April 15, 2004	May 01, 2004
Seattle Athletic Club, Seattle, WA	Aug 18-20	Aug 20-21	June 15, 2004	July 01, 2004
ACSM Exercise Specialist®				
IISHP, University of Oregon, Eugene, OR	Jun 17-18	Jun 18-19	April 15, 2004	May 01, 2004

— Apply ONLINE for fast and efficient service: <http://www.acsm.org/certification_applications.htm>.



Candidates for nomination to the NWACSM Board of Directors

Election will be by ballot sent to eligible NWACSM members.

NWACSM Regional Student Representative

Katie Meier, Junior, Exercise Science Major (B.S.), Gonzaga University (originally, Great Falls, MT)

Participating in high school sports such as cross-country, volleyball, and track, as well as outdoor activities such as hiking, fishing, and camping while growing up has contributed to my developing an active lifestyle. This and my passion to work with and help others led me to pursue a degree in exercise science.

To help fulfill this passion, Gonzaga University and its Jesuit ideals have been a perfect place to foster a service orientation and my socially conscientious mind set. I am currently working as a resident supervisor at a homeless shelter in Spokane and have also been involved with coaching Heisey youth sports, being a mentor to underprivileged kids, working in the Gonzaga Alumni Mentorship Program, being a member of both the exercise science club and the Montana club, playing on the club ultimate frisbee team, and working with the Community Action and Service Learning house all of which have been a very rewarding experiences through which I have learned a lot about interacting with others and have enhanced my leadership skills.

I believe that NWACSM provides a good forum for students to become more aware of career options and information related to exercise science, sports medicine, and health and fitness. I believe that my involvements at GU, community-mindedness, leadership skills, dedication, and determination would make me an effective regional student representative for NWACSM. I look forward to sharing ideas and networking with other students in the region and being a voice for them in the Northwest.

Steve Sears, Junior, Exercise Science Major (B.S.), Biology Minor, Gonzaga University (originally, Bozeman, MT)

Currently, I am the Activities Coordinator for Gonzaga's Exercise Science club as well as student advisor to the Knights of Gonzaga (a sophomore community service organization). Intermingled between my coursework in Exercise Science and Biology, I participate in intramural sports and other athletic recreation.

In service to Gonzaga and the greater Spokane area, I volunteered in Campus Kids, an after-school program for high-risk children, and as a former Knight I performed service ranging from working at homeless shelters and

retirement homes to constructing a barn for another after school program, called COLT.

Last summer I interned as a trainer at the Ridge Athletic club in Bozeman. It was here that I discovered the need to educate people of the value of health and fitness. Also, I petitioned to stop the sale of unnecessary supplements to members under 18 at the club.

Over the course of the last three years, I have been shaped as a student of Gonzaga University. Gonzaga has helped me to affirm my own convictions and develop a humanistic outlook upon life. My service and activities reflect my nature of "cura personalis" and have given me experiences that will provide a mold for future decisions. I believe that the NWACSM is an excellent resource for those interested in the fields of health, fitness, and sports medicine. As the Regional Student Representative, I plan to increase the notoriety of the NWACSM and exercise science at GU and other Northwest college communities. I strongly believe in the value of educating people to the value of health and fitness. My experiences and the motivation I exude will make me a great addition to the NWACSM's Executive Board.

Stephen B. Conant, HFI, CSCS, Graduate Teaching Assistant, Department of Health and Human Develop- ment, Montana State University, Bozeman, MT; ACSM HFI test site examiner and presenter

Upon completion of a Bachelor of Science in Health and Human Development at MSU, I successfully sat for the ACSM HFI, as well as the NSCA CSCS exam. These credentials, along with the knowledge that I have gained through internships in cardiac rehabilitation and sports rehabilitation became my impetus for starting a successful fitness consulting business in Bozeman. I make use of evidence-based training theory to bridge the gap between science and application. Through my contact with students and the general public, I strive to create an awareness of the ACSM and the guidelines that the college sets for exercise and lifestyle.

The NWACSM meetings provide a vista into the foreign landscape of scientific collaboration, which undergraduate students rarely conceive. The opportunity to see the culmination of their efforts result in something larger than a grade can greatly influence their future direction. I support the NWACSM because it provided me with this viewpoint at the time that I was completing my undergraduate degree.



I appreciate this opportunity to serve the NWACSM. I believe I have the ability to attract more students to participate in the regional chapter. My focus would be on encouraging students to reduce their economic barriers through fundraising, as well as showcasing the outstanding features of the NWACSM.



NWACSM Secretary

Trish Root, Physical Education Coordinator, North Seattle Community College, Seattle, WA; MS, University of Arizona; Meritorious Performance in Teaching award.

I have appreciated and enjoyed my experiences as the current NWACSM Secretary and web manager, especially my opportunities to communicate with fellow board members and the membership community. My main responsibility as Secretary is to take minutes at Fall and Spring meetings. In addition to accomplishing this task at each meeting since my tenure began, I have posted meeting minutes to our organization's website to keep members informed of regional business. I have continued to work on an online resource for potential students interested in exercise science, physical education, and health and human performance programs among two- and four-year schools in the northwest region. Begun while I served as Member-at-Large for NWACSM, the "Northwest Colleges" web pages offers information on almost 30 programs in the northwest. With assistance from department chairpersons and professional contacts at contributing colleges and universities, I feel NWACSM has created a wonderful tool for students and a valuable means for professionals to read about interests and activities at other institutions. Outside my duties as Secretary, I am also volunteering to help organize the upcoming 2004 Annual Meeting at Seattle Pacific University this March. I am seeking re-election so I can continue meeting and working with regional professionals in the clinical, research, and practical arenas.

Professional activities as Physical Education Coordinator at North Seattle Community College include participating in the state's community college physical education association (WSCCPEA), serving as Seattle Community College District's faculty representative for distance learning, serving on teachers' union executive board and campus senate (received award for service in Spring 2002), and participating in other numerous campus and district committees. I have experience presenting nationally and locally on instructional technology, pedagogy, women's health issues, physical fitness and body composition.



NWACSM Member-at-Large (Clinical)

Paul Johnson, MD, Physician - Family Practice, Sports Medicine, Sidney, Montana; BA - Biology/History, Jamestown, ND; MD - University of North Dakota, Grand Forks, ND; CAQ Sports Medicine

Currently, I'm a family practice/sports medicine physician practicing in Sidney, Montana. I've been a resident in Montana and member of NWACSM chapter since February 2003. My interests include backpacking, adventure races, fly fishing, and family activities.

I grew up in Minot, ND, and graduated from Minot High School in 1987. I attended Jamestown College and graduated with a B.A. in Biology/History. I attended medical school at the University of North Dakota and graduated in 1992. Internship and residency was at St. Joseph Regional Medical Center in South Bend, Indiana. During that time, I was actively involved with ACSM and attended national conferences and gave presentations. After obtaining my training in family practice, I stayed in Indiana and took a fellowship in sports medicine with the Sports Medicine Institute and the University of Notre Dame. I was team physician for local high schools and colleges, in addition to helping with Notre Dame Sports Medicine. Upon completion of the fellowship, I moved to Spearfish, SD, during August 2000 and joined a multi-specialty group beginning my clinical practice. While in Spearfish, I was actively involved in area sports, acting as team physician for Black Hills State University and Spearfish High School. In February 2003, my family and I moved to Sidney, Montana to begin a solo practice. I've become involved with NWACSM, attending the regional conference in Missoula. After attending my first NWACSM in Missoula, the first thing I liked was the small format and the ability to attend the majority of lectures and presentations. The smaller group size allowed me to meet new colleagues and learn more about exercise science research in sports medicine. I would make NWACSM even better by adding some medical presentations relevant to the theme of the regional meeting. Also, I'd like to see more clinical involvement in NWACSM with contributions to the quarterly newsletter. My first priority would be to increase the membership of clinical and allied health practitioners. Many regionally located professionals are involved with the national chapter of ACSM, but are not involved at the regional level. By having medical workshops, presentations, and lectures at the regional meeting, an increased number of practitioners might attend and further enhance the quality of the NWACSM meeting.

Candidates



Susi Mathis, M.S., ACSM RCEP, CES; Cardiac Rehabilitation and Wellness Coordinator, Saint Patrick Hospital, Missoula, MT.

I received my M.S. degree from East Stroudsburg University in cardiac rehabilitation and exercise science. I have ten years experience in the clinical field as an exercise physiologist working with cardiac and pulmonary patients. I received my Exercise Specialist Certification in 1993 from ACSM and recently received the Registered Clinical Exercise Physiologist certification. I have taught courses at Montana State University to undergraduate students and graduate students directly related to exercise science and electrocardiography. I proctor students from the University of Montana in the Cardiac Rehabilitation Department at Saint Patrick Hospital.

I believe there is a need to increase the awareness to the benefits of ACSM membership and involvement for students and current professionals in the clinical field. By running for Regional Chapter Committee Representative, I am looking for the opportunity to better serve the students and professionals in terms of their own involvement, and in helping them see what the potentials are for their future in clinical exercise science.

Janet T. Peterson, DrPH, RCEP, CHE; Assistant Professor, Exercise Science, Health, Human Performance and Athletics, Linfield College, Portland, OR, www.linfield.edu/~japeters

I have a doctorate degree in public health, preventive care (Loma Linda University, Health Promotion and Education) and a master's degree in kinesiology, exercise physiology (California State University, Northridge). I have several years of hands on clinical, applied and health promotion experience. My current research is clinically oriented, focusing on exercise and chronic health conditions, prevention and rehabilitation. I am a Registered Clinical Exercise Physiologist (RCEP) and my teaching includes a clinical exercise physiology course based on the KSA's for the Exercise Specialist and RCEP certifications. I have been active in both National and SW ACSM and have recently relocated to Oregon. I would like to develop a program within the NWACSM that would bring together the leaders, raise awareness of opportunities for clinical exercise professionals and provide students with a venue for education and networking.

I am really excited about the opportunities for involvement and education presently offered by the NWACSM, particularly for students. One of the primary goals of the regional chapters is to introduce students to the ACSM and provide opportunities for education, leadership, and networking. I would like to enhance the program offerings of the NWACSM by bringing a clinical perspective to the

professional development in exercise, fitness, health and physical performance. The NWACSM is an excellent venue for developing clinical resources and providing collaborative opportunities for students, junior faculty, researchers, and industry professionals. In addition, I would like to facilitate the growth of the ACSM clinical certification program by increasing opportunities through the NWACSM.

Sharon Peachey Sheremeta, Sc.D., Cardiovascular Clinical Support Services Manager, St. Joseph Hospital, Bellingham, WA

I earned my B.S. at Brown University, and both a M.S. and a Sc.D. at Boston University, specializing in exercise physiology. I have over 20 years of experience in academic, corporate, and clinical settings. While in New England, I served as Executive Secretary and Member-at-Large for the New England ACSM. Since moving to the Northwest in 1995, I have taught courses at Western Washington University, Whatcom Community College, and Bellingham Technical College. Currently, I am employed at St. Joseph Hospital in Bellingham, WA. Services under my supervision include cardiac rehabilitation, electrocardiography, cardiac stress testing, metabolic exercise testing, and community health education. In addition, I have served ACSM on the Scholarship Development Committee, the Health/Fitness Facility Accreditation Committee, and am currently a member of the Professional Education Committee, chairing the Quality Control Subcommittee. I am also a member of the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR).

I believe the best characteristic of NWACSM is the diversity of its membership. I have been fortunate to have worked with a variety of teams that emphasize collaboration among colleagues. NWACSM allows exercise professionals to come together to share ideas, learn about new research, and develop plans to disseminate information to the public. By approaching an issue, such as obesity, from a multidisciplinary standpoint, NWACSM can be a leader in coordinating efforts to improve quality of life. If elected, I hope to encourage and grow these collaborative aspects of NWACSM, and in some small way contribute to the chapter's mission.



Regional Chapter Committee Representative

Gianni F. Maddalozzo, PhD, Senior Instructor, Bone Research Laboratory, Internship Coordinator, Department of Exercise and Sport Science, Oregon State University, Corvallis, OR; <http://www.hhs.oregonstate.edu/exss/faculty-staff/vitas/Gianni-Maddalozzo.pdf>



ACSM: Member since 1992, 2002 – Present: ACSM State (Oregon) Chair. NWACSM: Served on a committee approximately 2 years ago with Dr. Stasinios Stavrianeas, to develop NWACSM abstracts submission criteria and NWACSM abstract evaluation procedures. Additionally, last year I served as a member of the abstract evaluation committee. Education: University of British Columbia, Vancouver, BC (BS; 1979, Teaching Certificate, 1981); Eastern Washington University, Cheney, WA (MS, 1986); Oregon State University, Corvallis, OR (PhD, 1998). Research Interest: The effects of exercise on bone and fracture risk, development of exercise prescription for improving bone mass and reducing fracture risk across the lifespan. Specifically, the effects of hormones, resistance training, and other stressors on the musculoskeletal system; modes of exercise that improve power and promote changes in body composition and improve muscular strength in older adults; the relationships among muscle strength, tissue composition, bone mineral density and hormone profiles.

I enjoy the proximity of the NWACSM conventions. Additionally, I appreciate that the NWACSM spends a great deal of time and energy to get both undergraduate and graduate students involved in this organization and conference. My goal as a board member would be to increase both student and professional membership in our chapter. Moreover, I would like to work hard to attract top professionals in our field to speak and present their research findings at our convention.

Tom Wells, P.E.D., FACSM, Executive Director, for the Washington Coalition for Promoting Physical Activity

I have recently begun my duties as executive director for the Washington Coalition for Promoting Physical Activity. I earned my doctorate and master's degrees from Indiana University and did my undergraduate studies at the University of Minnesota, Duluth. As a university professor for 28 years at institutions from Georgia to Alaska, my main teaching responsibility was exercise physiology, but I also taught subjects as varied as health, rock-climbing, and biomechanics and coached volleyball, soccer, golf and tennis. My past research, which I presented at meetings from Alaska to Venezuela, was in the cardiovascular responses to physical activity both over the lifespan and in various environments (cold, heat, and microgravity). I have been a past president of NWACSM as well as served on the planning committee for the 1999 and 2004 annual meetings. While at the University of Alaska, I cofounded the Alaska Regional Chapter of ACSM, served as its first regional chapter representative and later as its president. I have been a Fellow of the College since 2000.

What I like best about NWACSM is that it has a good idea of how it can best help meet the mission of the College by

emphasizing the education and the research of its student members. However, as many students do not pursue research-track graduate programs but will work as practitioners, which will significantly affect people's health, fitness, and performance, the Northwest Chapter needs to assure that its evidence-based programs are very applied to meet these practitioners' needs.



NWACSM President-Elect

Christopher T. Minson, Ph.D., FACSM, Assistant Professor, Department of Exercise and Movement Science, Co-Director of Exercise and Environmental Physiology Labs, University of Oregon, Eugene, OR; Faculty Web Page: www.uoregon.edu/~ems/, Laboratory Web Page: www.uoregon.edu/~halliwil/

Education: B.S., Psychology and Exercise Science, University of Arizona; M.A., Exercise Science, San Diego State University; Ph.D., Exercise Science, The Pennsylvania State University; Post-Doctoral Fellowship, Mayo Clinic, Rochester, Minnesota

Areas of Interest: Research in the area of neural control of the circulation in humans and environmental physiology. Teaching emphasis in cardiovascular and environmental physiology.

ACSM and NWACSM: National ACSM Research Awards Committee. Invited speaker at National Meetings and Exercise Specialist workshops, NWACSM abstract evaluator

NWACSM allows for more intimate associations between clinicians, faculty, and students from various disciplines than occurs at the National level. This helps foster the sharing of ideas and increases the educational opportunities for students. There are a few main areas in which I would like to help NWACSM to fully realize these opportunities. One of my first goals would be to increase the research and educational opportunities available to students. This would include the development of a network of faculty and clinicians to serve as resources to students for the development, implementation, and collaboration of research projects and ideas. This could include faculty and clinicians serving as outside thesis committee members or expert consultants in their field of expertise. This network could also be helpful for the sharing of research or educational ideas leading to cooperative projects between facilities. I would also like to have more opportunities made available for students to gain the requisite training and skills required for ACSM's certification programs. Lastly, I would like to increase the recognition of ACSM in the public domain. The communities in the region need to be made aware of the wealth of benefits ACSM provides and the importance of hiring employees who have received certifications through ACSM.



ACSM Announcements

New Position Stand taken by ACSM

Anabolic-Androgenic Steroids, Body Composition and Athletic Performance

Based on a comprehensive literature survey and a careful analysis of the claims concerning the ergogenic effects and the adverse effects of anabolic-androgenic steroids, it is the position of the American College of Sports Medicine that:

1. Anabolic-androgenic steroids in the presence of an adequate diet can contribute to increases in body weight, often in the lean mass compartment.
2. The gains in muscular strength achieved through high-intensity exercise and proper diet can be increased by the use of anabolic-androgenic steroids in some individuals.
3. Anabolic-androgenic steroids do not increase aerobic power or capacity for muscular exercise.
4. Anabolic-androgenic steroids have been associated with adverse effects on the liver, cardiovascular system, reproductive system, and psychological status in therapeutic trials and in limited research on athletes. Until further research is completed, the potential hazards of the use of the anabolic-androgenic steroids in athletes must include those found in therapeutic trials.
5. The use of anabolic-androgenic steroids by athletes is contrary to the rules and ethical principles of athletic competition as set forth by many of the sports governing bodies. The American College of Sports Medicine supports these ethical principles and deplors the use of anabolic-androgenic steroids by athletes.

This document is a revision of the 1977 position stand of the American College of Sports Medicine concerning anabolic-androgenic steroids

ACSM's graduate and undergraduate programs link now live. NW university programs are encouraged to ask for inclusion in the database.

ACSM now offers free information on undergraduate and graduate programs. ACSM's Graduate and Undergraduate Programs Link is a searchable online database of college and university programs in the field of sports medicine and exercise science. When completed, this resource will be useful for parents, teachers, and counselors as well. The link is free and provides direct links to the web sites of top colleges and universities. To begin searching today, visit <<http://www.acsm.org/student/PL/User/UserLogon.asp>>. To have your college or university program included in the directory, contact Jim Gavin at <jgavin@acsm.org>.

ACSM Grant Applications Now Available

Through the ACSM Foundation and the Office of Research Administration and Programs, ACSM offers research grants to ACSM student members as well as new and senior investigators. Funding areas include, but are not limited to: injury prevention, weightlessness and space physiology, exercise and aging, exercise and cardiovascular disease risk factors, and exercise and heart rate response. The deadline for grant submission is January 30, 2004. For an application and a complete list of current grant opportunities, visit <<http://www.acsm.org/GRANTS/grants.htm>>.

Get Connected through Interest Groups

ACSM's 21 Interest Groups provide opportunities to network, both formally and informally, with members of like interests. The groups also provide a forum for discussion, activity and debate. ACSM's active Interest Groups are as follows: *Aging, Biomechanics, Biostatistics, Bone and Osteoporosis Network Exchange, Cancer, Cardiorespiratory Interests, Clinical Exercise Physiology, Endurance Athlete Medicine and Science, Environmental Physiology, Health Education and Health Promotion, Military Sports Medicine, Minority Health and Research, Molecular and Cellular Regulatory Mechanisms, Nutrition, Non-Invasive Investigation of the Neuromuscular System, Occupational Physiology, Oxidative Stress, Pediatric Exercise Physiology, Psychobiology and Behavior, The Science in Winter Sports, Strength & Conditioning Specialties*. To get involved with an interest group today, visit ACSM's Web Site at <http://www.acsm.org/membership/interest_groups_description.htm>.



NW News & Views

Central Washington University

Graduate Studies in Exercise Science in the Department of Health, Human Performance and Recreation is currently accepting applications for new cohort, beginning in Fall 2004. Graduate assistantships are available. For information please contact:

Dr. Leo J. D'Acquisto, Director, Graduate Studies.
Central Washington University, HHPR.
509-963-1909, <acquisto@cwu.edu>.

Washington State University - Spokane

Faculty news from the graduate program of the Clinical and Experimental Exercise Science Department:

Dr. E. Carolyn Johnson, associate professor in the program, was recently awarded two research grants: Diabetes Action Research and Education Foundation (\$40,000). Principal Investigator (with Katherine Tuttle, M.D.). *Role of vascular endothelial growth factor and its receptors in mediating increases in fibrosis induced by hyperglycemia and excess amino acids in rat mesangial cells.*

Alcohol and Drug Abuse Program, Washington State University (\$12,479, additional \$12,479 potential). Principal Investigator. *Protective effect of ethanol against endothelial cell damage caused by hypoxia-reoxygenation: Role of protein kinase C and adenosine and adenosine receptors.*

Drs. Sally Blank, Jackie Banasik, and Mel Haberman (professor and Associate Dean of Research, WSU College of Nursing), have recently completed research on a WSU Spokane seed grants to investigate complementary / alternative intervention on psychosocial, quality-of-life, and immune outcomes in women with stable breast cancer. This research is in collaboration with Dr. Joni Nichols, M.D., Cancer Care NW, Spokane.

University of Oregon News

Faculty members of the Exercise and Movement Science Department (EMS) have been exceptionally successful in attracting grants to fund their research. The following list of topics is also a good representation of the areas and issues currently under examination by EMS faculty.

Biomechanics: Dr. Li-Shan Chou, "Biomechanical/sensory motor functions after concussion," Centers for Disease Control & Prevention (\$866,973); "Dynamic balance control during obstacle crossing," Medical Research Foundation (\$24,954); "Modeling the role of muscle strength in balance

control," National Institute of Aging (\$50,000); "Instability and muscular demand during obstacle crossing," National Institute of Child Health (\$100,000); and Dr. Andrew Karduna, "Consequences of altered scapular orientation," Whitaker Foundation (\$232,000); "Three-dimensional shoulder kinematics in patients with rotator cuff tears," Medical Research Foundation (\$30,000)

Physiology: Dr. Chris Minson, "Blood pressure and vascular regulation in women," American Heart Association (\$80,000); "Age and nitric oxide in cutaneous vasodilation," National Institutes of Health (\$124,949); "Mechanisms of cutaneous vasodilation in humans," National Institutes of Health (\$698,273); and Dr. John Halliwill, "Cardiovascular chemoreflex-baroreflex interactions," National Institutes of Health (\$913,812); "Mechanisms of post-exercise hypotension in humans," American Heart Association (\$140,000).

Motor Control: Dr. Paul van Donkelaar, "Cortical correlates of functional recovery following stroke rehabilitation" Medical Research Foundation of Oregon (\$30,000); and Dr. Marjorie Woollacott, "Constraints on dynamic balance control in children with cerebral palsy," National Institutes of Health (1,125,000)

Please provide us with your E-mail address or inform us about E-mail address changes.

NWASM is changing to electronic communication as a way to optimize efficiency of its membership outreach. In the future, our regional newsletter will be distributed to members' E-mail accounts from the NWACSM Home Office at Eastern Washington University in Cheney, WA.

If you have not given us your E-mail address yet or if your E-mail address has changed, please notify Penny Rose at the Home Office:

Penny.Rose@mailserver.ewu.edu



NW News & Views

Kinesiology Publications goes tech

Beginning with the new issue, published at the beginning of 2004, Kinesiology Publications (KinPubs) will make all new theses available electronically. Students and faculty can search the collection database at <http://kinpubs.uoregon.edu>. It's a great resource for exercise science research!

KinPubs--formerly Microform Publications of Human Movement Studies--a nonprofit component of the International Institute for Sport and Human Performance (IISHP) at the University of Oregon, archives and disseminates graduate research studies (master's and doctoral dissertations) on microfiches and, now also, in electronic format.

Kinesiology Publications cooperates with colleges and universities in English-speaking countries to preserve student theses and dissertations on microfiches and, more recently, in electronic format. This service provides wide access to current graduate research, promotes the research reputation of the participating schools' graduate programs, and encourages the spread of knowledge and understanding in Kinesiology and its allied fields.

Twice a year, the entire text of recently completed theses and dissertations preserved on microfiches are distributed to approximately 140 subscribing university libraries and research institutions in North America, Europe, Asia, and Australia. In addition, requests for microfiches and electronic files are received from students and researchers from throughout the world. Additions to the collection are indexed twice a year in Kinesiology Abstracts (KinAbs) (formerly: Microform Publications Bulletin). PDFs of past KinAbs publications are available for free on the website at <http://kinpubs.uoregon.edu>.

Kinesiology Publications is an indexing partner of Sport Information Resource Centre (SIRC) of Canada, the world's most authoritative sports information service. There, the authors, titles, and abstracts of the studies are incorporated into SIRC's SPORT database,

which can be accessed on-line through international telecommunication networks. The information is also available on SPORTDiscus, a CD-ROM database available in many major libraries throughout the world.

NWACSM Secretary Report

The NWACSM Annual Meeting program can be found on the NWACSM website at: <http://northonline.northseattle.edu/nwacsm/AM2004page.htm>

NWACSM Executive Board Minutes

The most recently approved set of NWACSM Executive Board meeting minutes, from the Spring 2003 session, may be downloaded in MS Word format from the NWACSM website's main page.

NWACSM Election Candidates

Several executive board positions are becoming available this year, and elections will be conducted via postal mail. In addition NWACSM will have candidate information posted on its website in early December.

NWACSM Website—Northwest Colleges Update

Since 2001, the "NW Colleges" link on the NWACSM website offers potential students information on exercise science, physical education, and health & human performance programs offered by two- and four-year colleges and universities in the northwest. To view the information from these 25 northwest schools, please visit the web at: http://northonline.northseattle.edu/nwacsm/nwacsm_inst_info.html.

In early November all colleges with information published on the website were asked to update their information. If your institution requires an update, or if your school is not yet represented and you would like it to be, please send an E-mail request for an "Institutional Information" form to: troot@sccd.ctc.edu.

—Trish Root, M.S., North Seattle Community College



Continued from page 1, *Diet*

insulin levels, but because the reduction in food choices leads to a significant reduction in caloric intake. A recent study, published in the *Journal of the American Medical Association* lends further support to the notion that it is calories, not composition, that count when it comes to weight loss. Researchers used a statistical technique known as a “meta analysis” (basically a statistical summary of results from several studies) to examine the efficacy and safety of low-carbohydrate diets. Ninety-four studies were included in the analysis (only five of which lasted for more than 90 days). The results of the meta-analysis indicated that weight loss was not associated with reduced carbohydrate content, but linked to one or more of the following three factors: (1) decreased caloric intake, (2) increased diet duration, and (3) higher initial body weight.

If I Can Lose Weight, What's The Harm?

While low-carbohydrate diets will likely not lead to kidney failure (at least not over the short-term), they do tend to cause some fairly significant side effects and have the potential to negatively impact health, particularly over the longterm. Common side effects associated with carbohydrate restriction include ketosis (elevated levels of ketone bodies in the bloodstream), fatigue, muscular weakness, headaches, dizziness, constipation, and halitosis (bad breath). Of course, the more severe the carbohydrate restriction, the more serious the side effects and greater the health risks. The ketosis that accompanies low-carbohydrate diets is particularly problematic as it can upset the delicate acid-base balance of the body, promote dehydration, and lead to electrolyte imbalances and, potentially, cardiac arrhythmias. Moreover, ketosis can cause an increase in uric acid levels in the body and, thus, may increase incidence of gout in susceptible individuals. Perhaps one of greatest concerns with low-carbohydrate diets is that they are nutritionally unbalanced. Carbohydrate rich foods are key sources of several essential vitamins, minerals, and phytochemicals, many of which are not found in significant amounts in meats and/or fats/oils (e.g., folate, riboflavin, vitamin C, vitamin E, B-carotene, vitamin D, calcium, fiber, lycopene, sulphoraphane, allicin, etc). Coincidentally, low-carbohydrate advocates usually recommend the consumption of a vitamin/mineral supplement, which is perceived by some experts as an acknowl-

edgment of the diets' potential shortcomings. Nonetheless, a pill will likely not provide all of the essential nutrients that the diet is lacking, nor will it supply the fiber or the array of protective phytochemicals found exclusively in fruits, vegetables, and whole grains. Low-carbohydrate diets also tend to be high in fat, particularly saturated fat, which can increase cholesterol levels, promote atherosclerosis, and eventually lead to heart disease. Moreover, the ketosis that was described can cause the oxidation of LDL-cholesterol, making it more likely to stick to artery walls, thereby increasing the risk of atherosclerosis and subsequent heart disease. Very high protein intakes tend to increase calcium excretion in the urine, which over time could lead to loss of bone mineral density (BMD). This calcium depletion compounded by the loss of BMD that usually accompanies weight loss may lead to an increase risk of osteoporosis. This is likely to be particularly problematic for women, especially those who are post-menopausal as their risk of osteoporosis is already elevated. A final concern with low-carbohydrate diets is that they are extremely difficult to maintain. While people generally do lose weight initially on these diets, there is a strong likelihood that they will go off the diet and the lost weight will return (along with potential health problems resulting from diet restrictions). Moreover, the individual may seek other, and perhaps more severe, weight loss regimens making the health risks even greater and setting the stage for weight cycling or yo-yo dieting.

Avoid The Temptation

While the notion of “eating all you want and still losing weight” is tempting, it is false and misleading. It is therefore in every dieter's best interest not to be persuaded by any claims of quick and easy weight loss. Unfortunately, when it comes to losing weight, there are no quick fixes. Losing weight and maintaining that weight loss takes work. It requires changing lifestyle behaviors that support a healthy diet and plenty of exercise. As has been shown by the highly publicized National Weight Control Registry studies, successful weight loss requires that individuals adhere to following three principles: reduce energy intake (i.e., eat less), consume a low fat diet (< 24 percent of calories from fat) and increase energy expenditure (i.e., exercise more).

—“Reprinted with permission of the American College of Sports Medicine, ACSM Fit Society® Page, Fall 2003, p. 6, 7 and 9.”



Book Review

Biochemical Monitoring of Sport Training

Atko Viru, PhD, DSc, and Mehis Viru, PhD
Human Kinetics, Champaign, IL, 2001
296 pages, \$49.00

As more details about athletes' use of erythropoietin and the designer steroid tetrahydrogestrinone (THG) come to light, exercise scientists and allied health professionals who work with the public will be asked many questions about the chemistry of exercise. Though no textbook now in print can tell the story of THG, *Biochemical Monitoring of Sport Training* offers a thorough and expansive look at the biochemistry underlying sport performance. Authors Atko and Mehis Viru have organized the text into three broad sections: the uses of biochemical monitoring, monitoring methods, and implementation of monitoring programs. Taken together, the sections provide coaches, trainers, and athletes with a blueprint for enhancing individual performance through precise measurement of the body's response to training.

The text opens with a brief history of biochemical testing in competitive athletes. Early measures such as lactate and hormonal studies, though limited in scope compared to today's capabilities, provided a foundation on which to build contemporary monitoring programs. Even when athletes voluntarily seek monitoring, ethical considerations must be addressed to ensure their safety and the usability of the testing. In addition, the authors include a summary of the immediate and long-term physiological adaptations that occur with various types of training, which facilitates a clearer understanding of the principles and techniques described later in the text.

The authors discuss in detail the blood metabolites commonly used in monitoring of athletes. Though most professionals will have had some exposure to the measurement and functional value of blood fractions, the text's succinct summary of underlying principles and recent findings is a useful reference.

The text describes regulation of the sympathoadrenal system, the pituitary-adrenocortical system, the pancreatic hormones, growth hormone and growth factors, thyroid hormones, sex hormones, the hormones regulating water and electrolyte balance, and endogenous opioid peptides. It also discusses in considerable depth the training effects on blood components and the immune system. A separate chapter discusses the appropriate interpretation of blood test results and potential misinterpretations to avoid.

The meat of this volume, however, lies in the section describing the organization of biochemical monitoring programs. The authors first look at feedback from training-induced effects on the body, such as changes in the anaerobic threshold and maximum oxygen uptake. Liberal use of graphs from published studies helps to clarify key points. They then describe how to assess the training session workload, structure microcycles within the overall training program based on the test feedback, and monitor recovery from training. The final chapter addresses the optimization of training during the annual training cycle to yield the largest improvement in performance. Changes in the hormonal, metabolic, and immune profiles of athletes during the training year and approaches to monitoring these adaptations are discussed. The authors conclude with remarks about select sport-specific training phenomena.

Biochemical Monitoring of Sport Training covers a great deal of ground in addressing the metrics of athletic training. Though the volume is well-written and concise, it clearly is intended for the exercise physiologist or team physician rather than the community or youth coach. Athletic trainers may find its treatment of overtraining helpful in managing the care of competitive athletes. Those interested in the physiology underlying sport performance will find it invaluable in assessing individual and team progress.

—Carolyn Petersen, M.S.
Web Editor, mayoclinic.org
Mayo Clinic, Rochester, MN



Student Page

On becoming a graduate student

As December and January approach it is time for undergraduate seniors to make final decisions about their future. It is also application time for those who want to go on to graduate school. In fact, for seniors who have not begun the process by now, it is crunch time. So, perhaps my advice will be more geared toward undergraduate juniors and sophomores, and a few of the very on-top-of-things freshmen.

Admission into graduate programs can be quite competitive. This is particularly true for highly recognized and ranked programs. Therefore, it is quite helpful to understand the process of application beforehand. There is a value in the application process as a learning experience per se, nevertheless, the process can be made easier just by knowing to start early and prepare for some extra work. I will share with you my perspective.

First off, ask yourself what type of continued education you are looking for. Is it research, physical or occupational therapy, nursing, medical school, or clinical education in psychology, prosthetics, nutrition, or else? Each path has its own process and application requirements. It is therefore wise to look at the requirements, not only for the program(s) you are looking at, but also for the school(s) you are considering. I began this process midway through my sophomore year as an undergraduate. From researching the requirements, I made sure that I took all the classes that I would need to be considered and that I was on track for graduation as well. I have watched some of my peers realize too late in the game that they needed certain classes for their desired programs. Planning ahead is therefore invaluable.

Start your application early—maybe in the summer before your senior year—so that you have plenty of time to think about where you want to go, how you want to write your essays, etc.

Most graduate admissions committees require the GRE. It is wise to prepare well and practice for these exams—perhaps, using the summer as a time to do so. The GREs can be taken more than once, so take the test a few months before you turn in your application. This way, if you do not do as well as you would have liked to, you can try again. It is important to have scores available to programs before admission deadlines—incomplete applications are not usually considered.

Other pieces of the application that can be completed ahead of time are the essays required, any requested autobiographical statements, and a letter of intent or interest. I understand that it is not uncommon for students to write an autobiographical account, which basically consists of information about where they were born and what kind of sports they played in high school or college. That will simply not do. Schools seek to get a statement of your interests in the field and want to know how you came to have those interests. They ask what your goals and ambitions in your career are, and how their specific programs can help you achieve those goals.

Finally, letters of recommendation are extremely important to your application. Consider that they are time consuming for those writing them, so keep that in mind when you are asking people. Give sufficient time for them to be written and tell the persons when your application is due, and what your hopes are for the letters.

I hope that my advice helps. Remember to use the American College of Sports Medicine as your “tool to career success because it was created by people like you for people like you”. Additionally, please use me as a resource if you think I can be of any other help. Good luck in all your endeavors.

All my best!

Sarah Durkee, National Student Representative
<dancequeen888@yahoo.com>



Theses and Dissertations

Below is a list of in-progress or completed doctoral dissertations and master's theses in the Northwest region of which we learned since the 2003 summer newsletter.

Graduate advisors, please contact us about a study in preparation as soon as the work takes final shape. Please send an E-mail notice to Henriette Heiny, <hheiny@uoregon.edu>.

Eastern Washington University

Master's Theses

Body image, self concepts and self esteem in male and female adolescent cross-country runners.

Jayne M. McLaughlin. Advisor: Wendy Repovich (Summer 2003)

The effects of a stage-matched, email-mediated, lifestyle activity intervention. Robin Pickeering. Advisor: Wendy Repovich (Summer, 2003)

Selected physiologic responses in deep water running with endurance athletes. Erik W. Anderson. Advisor: Wendy Repovich (Summer, 2003)

Oregon State University

Ph.D. Dissertations

A biomechanical and physiological comparison of deep-water running styles. Gary Killgore. Advisor: Anthony Wilcox (September 2003)

Master's Thesis

Retinol, bone mineral density and falls in elderly women. Carrie Gramer. Advisor: Christine Snow (November 2003)

University of Oregon

Doctoral Dissertations

The effect of sex hormones on anterior tibial displacement and anterior tibial shear in normal ovulating women and oral contraception. Susan Verscheure. Advisor: Louis R. Osternig (June 2003)

Cutaneous active vasodilation in humans: contribution of nitric oxide and vasoactive intestinal peptide.

Brad W. Wilkins. Advisor: Christopher T. Minson (June 2003)

An intensive massed practice approach to re-training balance post-stroke. Laura G. Adomaitis. Adviser: Marjorie H. Woollacott (June 2002)

Biomechanical assessment of balance control in the elderly: muscular weakness and dynamic instability. Mike Hahn. Advisor: Li-Shan Chou (Dec. 2003)

Master's Theses

Correlation between muscular strength and dynamic stability in the elderly. Heng-Ju Lee. Advisor: Li-Shan Chou (June 2003)

Effects of walking speed on center of mass motion in healthy young and elderly adults. Marisa L. Hastie. Advisor: Li-Shan Chou (June 2003).

Honor's Thesis

The effect of sex hormones on knee function. Leslie Fuller. Advisor: Susan Verscheure (June 2003)

Washington State University, Spokane

Master's Project

Overtraining in Adolescent Endurance Athlete Populations. Jennifer Wilberding. Advisor: Sally E. Blank (May 2003)

Master's Theses

Chronic glutamine supplementation influences nasal secretory IGA but not salivary secretory IGA during short-term overload run training. James Krieger. Advisor: Sally E. Blank (December 2003)

Duration effects of moderate levels of ethanol on vascular endothelial growth factor and its receptors in coronary microvascular endothelial cells. Sara Minier. Advisor: E. Carolyn Johnson (expected grad. date, May 2004)

Effects of a Complementary Yoga Program on IL-2 Stimulated Nuclear Factor Kappa Beta (NF- κ B) in Lymphocytes of Women with Breast Cancer. Michelle Crowe. Advisor: Sally E. Blank (expected graduation data, May 2004)



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2004 Northwest American College of Sports Medicine Membership Form

Name: _____
 First Middle Last

Date of Birth: _____

Mailing Address: _____

City _____ State _____ Zip Code _____

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Fax: () _____

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Occupation: _____

Highest Degree Earned: _____

Are you a member of the national ACSM? _____

Your ACSM member no. _____

If yes, check any that apply

- Professional
- Professional-in-Training
- Associate Member
- Undergraduate Student
- Graduate Student

Chapter membership category and yearly dues

- Professional ACSM member (\$30)
- Professional ACSM nonmember (\$45)
- Student (\$15)
 - Undergraduate Student
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Mail this form and a check made out to NWACSM to:

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