

# Welcome

## PHYSICIAN AND STAFF NEWS

### Clark R. Daines, MD

#### Pathology

#### Wenatchee Valley Medical Center

Clark R. Daines, MD graduated from Brigham Young University with a B.S. in zoology and the University of Washington School of Medicine with his M.D. degree. He completed an Anatomic and Clinical Pathology Residency at the University of Utah Health Sciences Center, Department of Pathology, where he was also named Chief Resident. Dr. Daines has been on faculty at the University of Utah as Instructor of Pathology for the past seven years. Dr. Clark Daines has three boys ages 10, 14 and 17. He includes skiing, golf and carpentry work among his non-clinical interests.



### Mitchell A. Garrison, M.D.

#### Hematology / Oncology

#### Wenatchee Valley Medical Center

Mitchell A. Garrison, M.D. earned his B.A. in Biology Cum Laude and his Medical Degree at Boston University, Boston Massachusetts. He completed his Internal Medicine Internship and Residency at Madigan Army Medical Center at Fort Lewis, and a hematology and medical oncology fellowship at Brooke Army Medical Center in San Antonio, Texas. For the past five years, he has been on staff in the Hematology and Medical Oncology Section at Brooke Army Medical Center at Fort Sam Houston, Texas where he gained extensive experience with chemotherapy drug trials. He is a member of the Alpha Omega Alpha Honor Medical Society. Dr. Garrison enjoys church ministry and has participated in several medical missions to Mexico and hopes to continue mission work in the future. He and his wife Amy have three children, Ashley 15, Casey 9, and Stevie 1. He enjoys golf and skiing and is looking forward to kayaking.

### David M. Miller, M.D.

#### Hospitalist

#### Wenatchee Valley Medical Center

David M. Miller, M.D. graduated from the University of Tennessee, Knoxville as class valedictorian and Phi Beta Kappa. He completed his M.D. degree at the University of Tennessee Center for Health Sciences, Memphis where he was a member of the Alpha Omega Alpha honor society. Dr. Miller completed his internal medicine training at the Naval Regional Medical Center in Oakland and served on the internal medicine teaching staff. Since leaving the military, Dr. Miller was in private practice and worked as an emergency room physician, most recently at Samaritan Hospital in Moses Lake, where he was Vice Chief of Staff. Dr. Miller and his wife Debbie have two college-age daughters and he enjoys competing in triathlons and skiing.



### Carolina See, M.D.

#### Pulmonary Medicine

#### Wenatchee Valley Medical Center

Carolina See, M.D. completed her undergraduate work and medical degree, both magna cum laude, at the University of Santo Tomas in Manila, Philippines. She completed internal medicine Residency training at the Albert Einstein Medical Center, Philadelphia, Pennsylvania, followed by Fellowship training in pulmonary, critical care, and sleep medicine at the University of Illinois at Chicago. Dr. See treats adult patients for a variety of diseases such as COPD, asthma, lung cancer, and pulmonary hypertension. She has an interest in both adult and pediatric sleep medicine and also works in critical care. Dr. See enjoys the outdoors - running, hiking, biking and photography. She also enjoys playing the acoustic guitar and reading.



### Robert J.S. Weston, M.D.

#### Family Medicine

#### Omak Clinic

Robert J.S. Weston, M.D. received his B.S. degree from the University of Washington in Seattle and his M.D. degree from the University of Washington School of Medicine, Seattle. Dr. Weston completed his Residency at the Family Medicine Residency of Idaho in Boise, Idaho. Dr. Weston and wife, Heidi have a nine-month old son, Calum.

### Christie Bruno, PA-C

#### Walk-In Clinic

#### Omak Clinic

Christie Bruno, PA-C was born in Coulee Dam and grew up on a wheat farm and with horses. She worked as a registered nurse for a number of years before deciding to continue her medical education in the Physician Assistant program at the University of North Dakota. She came to the Omak Clinic from Samaritan Hospital in Moses Lake. Christie is married with two grown children and enjoys boating and horseback riding.



### Craig Christopher, PA-C

#### Emergency Room

#### Omak Clinic / North Valley Family Hospital

Craig Christopher, PA-C earned a B.S. degree at the College of Medicine, University of Nebraska Medical Center, Omaha, Nebraska. He completed a Family Practice Preceptor for Medex Northwest at the University of Washington, Seattle. Before

coming to WVMC he practiced with Douglas County Health District. Craig Christopher's outside interests include flying competition aerobatics, skydiving, backpacking and skiing.

### Darcy Jeffery PA-C

#### Walk-In Clinic

#### Wenatchee Valley Medical Center

Darcy Jeffery PA-C is seeing Walk-In Clinic patients in Wenatchee, East Wenatchee and Cashmere. She is a graduate of the University of Washington with a B.S. in zoology. She worked as a medical assistant in pediatrics before continuing her education at Oregon Health and Science University, School of Medicine in Portland, where she completed the Master of Physician Assistant Studies. She is a Certified Physician Assistant. Darcy enjoys dance and has taken up skiing. She and her husband Matt enjoy travel and playing with their golden retriever puppy.



### Terri Johnson, ARNP

#### Walk-In Clinic

#### Wenatchee Valley Medical Center

Terri Johnson, ARNP received her Bachelors of Science in Nursing from Pacific Lutheran University in Tacoma and worked as a labor and delivery nurse in Bellevue, Seattle, and Olympia hospitals for eleven years before enrolling in the Physician Assistant/Nurse Practitioner Certificate Program at the University of North Dakota at Grand Forks. After receiving her degree, she worked as a nurse practitioner/physician assistant in Eastern Montana and North Dakota. Originally from Issaquah, Terri has moved to our area to be closer to family. Her husband is a newly retired rancher/farmer. Together, they have two grown children. Outside of work, Terri enjoys snowmobiling, horseback riding, gardening, quilting, and decorating her new home.

### Arlene Zwald, ARNP

#### Behavioral Medicine

#### Wenatchee Valley Medical Center

Arlene "Arlie" Zwald, ARNP received her RN degree from the Iowa Methodist Hospital School of Nursing in Des Moines, Iowa, her BSN degree from Metropolitan State College in Denver, Colorado and her MSN in Psychiatric-Mental Health from Gonzaga University. Outside of work Arlie enjoys skiing, gardening, summer evening walks, and the company of friends.



## The Nutrition of Bones

"Good nutrition is essential for bone health," says Maureen Boswell, Registered Dietitian. While most Americans know how important calcium is, many do not get enough. Adults up to 50 years of age should consume 1000 mg every day, and 1200 mg after 50. Good sources of calcium include low-fat milk, yogurt, soy milk, and other foods fortified with calcium, such as certain breakfast cereals or orange juices. Calcium supplements are available, and antacids contain calcium as well. Just as important as calcium is vitamin D, which makes calcium absorption possible. While we make most of the vitamin D we need when our skin is exposed to sunlight, other good sources include dairy products, milk and other fortified foods, fish, such as salmon and sardines. Since it may be difficult to get enough vitamin D from food alone, you may wish to consider supplements. "Dark green leafy vegetables are a source of calcium, but it would be difficult to get all of your daily calcium from vegetables," says Boswell. "Some people can't eat dairy products. If they have a milk allergy, then they simply cannot eat any dairy products. But if they're lactose intolerant, some dairy products are easier to digest, like yogurt or cheese."

## Treatment for Vertebral Fractures

Martin "Marty" Mendro turned 93 on February 12th, but he could easily pass for a 70-year-old. He worked in sales most of his life, and says he retired four times, the last time about six years ago. In 1942 he joined a barbershop quartet, an alliance that lasted for 46 years, won the 1949 International Barbershop Quartet Championship, and landed Marty in the Barbershop Harmony Society Hall of Fame. Marty was ninety-years-old when he took a tumble and fractured two vertebrae, and cracked a third.

Vertebrae are bony segments that make up our spinal column. Vertebral fractures can be painful, cause loss of height and curvature of the spine, which in turn may lead to more serious problems with lungs, the heart, or digestion. Sometimes vertebral fractures occur with day-to-day living. And sometimes they happen due to a traumatic event, as in the case of Marty.

Marty and his family live outside of Tonasket. While some groups "adopt a highway," Marty and his family "adopted a dirt road." Marty was picking up debris on the side of the road when the shoulder gave way and he rolled down a 30-foot embankment, landing on the rocky bottom of an irrigation ditch on his back. "My son Wayne came along and picked me up and took me to the medical center in town. They patched me up and I went home and back to work, but I started to get very serious backaches."

While Marty was no stranger to backaches, he knew this one was different. He went back to his doctor, who sent him to Wenatchee to see Dr. Ian Cunningham, an interventional radiologist who specializes in a procedure for repairing damaged vertebra - a procedure called balloon kyphoplasty.

"Balloon Kyphoplasty is a minimally invasive procedure used to treat compression fractures of the vertebra," explains Dr. Cunningham. "Though originally used to treat benign compression fractures of the spine vertebrae due to osteoporosis, it now is also being used to treat the same sort of fractures caused by cancer".

Under x-ray guidance, Dr. Cunningham creates a small pathway into the fractured bone. He guides a small, specialized balloon through an instrument into the vertebra. The balloon is carefully inflated to raise the collapsed vertebra and lessen the degree of deformity and collapse. Inflation of the balloon also creates a void or cavity in the vertebra. Once the vertebra is in the correct position, the balloon is deflated and removed, and the cavity is filled with bone cement forming an 'internal cast' to support the surrounding bone and prevent further collapse. Like any fracture, once it has been stabilized, the pain subsides.

"By the time they get off the operating table the cement is already dry, it's hardened," says Cunningham. "The procedure

takes anywhere from 45 to 60 minutes to do for each level that we treat. We have patients stay overnight in the hospital both to help manage their pain control and to evaluate for any post-operative complications that could develop."

Cunningham cautions that the procedure is not for everyone. It's primarily for people with compression fractures who have not responded to a more conservative treatment of bed rest and pain medication. The problem with bed rest is that the inactivity, especially for the elderly, causes loss of muscle strength and can accelerate the progression of osteoporosis. Also pain medication can create it's own problems and is not well tolerated by some people. "For some patients that's just not the best way to go," says Cunningham. "I believe that the older you are the more important it is to keep active."

"I was amazed at the fact that I could get up the next day," says Marty. "Immediately following the surgery the pain started to subside. It stayed with me for about a year, but always less serious"

"I call it the Lazarus phenomena," says Dr. Cunningham. "You can honestly take some patients from being bedridden with pain to having them up and walking again that afternoon. It can be hugely effective."

As with any surgery, there are risks, mainly the risk of infection. The risk of cement leaking out into the spinal canal or veins, where it could create serious problems, is rare, but carefully monitored. Dr. Cunningham believes that kyphoplasty is the first step in healing, followed by physical therapy and addressing the issue of osteoporosis. "They put me on a schedule of physical therapy for ninety days," says Marty. "You have to follow up. I still do stretching exercises."

Physical Therapist Joanne Thomas of Moses Lake Clinic has worked with patients after the procedure. "We do a lot of education of proper body mechanics," says Thomas. "People with back problems have often unconsciously adjusted their posture to compensate for the pain or discomfort. They often have poor posture and tight muscles. Consistent exercise and stretching is crucial for spine health as well as for osteoporosis," says Thomas. "Talk to your doctor first. You can have a trainer or therapist design a program that's right for you."

If you're ever faced with the decision of having kyphoplasty, Marty has some advice for you. "First of all, have it done. No question about it. Don't expect overnight recovery, but plan on a reduction in the amount of pain, do everything you're supposed to do and I think eventually the pain will go away. I'm 93. You take a 40 or 50 or 60 year-old, and they can't lose."

Boning Up on Osteoporosis - continued

**THE NATIONAL OSTEOPOROSIS FOUNDATION RECOMMENDS FIVE STEPS TO BONE HEALTH:**

1. *Get your daily recommended amounts of calcium and vitamin D.*
2. *Engage in regular weight-bearing exercise*
3. *Avoid smoking and excessive alcohol*
4. *Talk to your doctor about bone health*
5. *When appropriate, have a bone density test and take medication.*

function properly as well. Blood carries calcium throughout your body and delivers it where it is needed. Maintaining an adequate calcium intake is an important step towards good bone health throughout life. Vitamin D is needed to help the body absorb calcium (see Nutrition of Bones for more information).

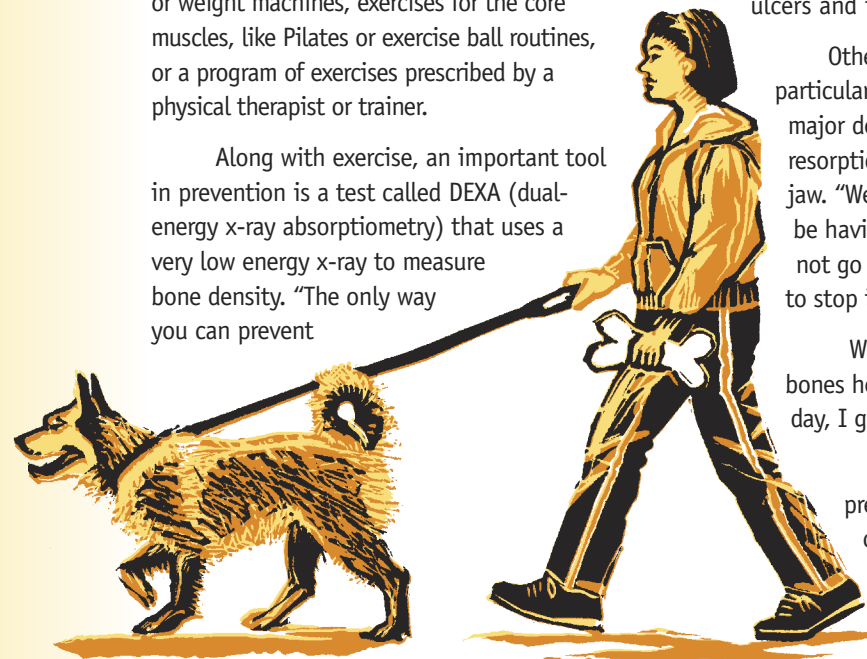
Just as a muscle gets stronger and bigger the more you use it, a bone becomes stronger and denser when you place demands on it. If your bones are not called upon to work they won't get strong. Lack of exercise, particularly as you get older, may contribute to lower bone mass or density.

Eric Olsen, Physical Therapist at the Moses Lake Clinic, says two types of exercises are important for building and maintaining bone mass and density: weight-bearing and resistance exercises. "Weight bearing activities increase tension and stress through the bone which in turn increases bone density. We also look at strengthening activities to increase strength to prevent falls, because if you're osteoporotic and you fall, you have an increased chance of sustaining a fracture."

Walking is one of the best weight bearing activities, says Olsen. Jogging, stair climbing, dancing and soccer are other weight-bearing exercises, while swimming and bicycling, although great cardiovascular exercises, are not weight-bearing.

Strengthening exercises include free weights or weight machines, exercises for the core muscles, like Pilates or exercise ball routines, or a program of exercises prescribed by a physical therapist or trainer.

Along with exercise, an important tool in prevention is a test called DEXA (dual-energy x-ray absorptiometry) that uses a very low energy x-ray to measure bone density. "The only way you can prevent



fractures is to know about it before it becomes an issue," says Dr. Stone, "and that really depends on screening bone densities. It's recommended that women over the age of 50, or women who have gone through menopause at an earlier age, and men in whom there is a suspicion of osteoporosis get a bone density exam. Medicare covers bone density scans for people meeting that criteria."

If you're diagnosed with osteoporosis, there are medications available to help maintain and even build bone density. Estrogen therapy, once the primary treatment, is advised with caution these days. Calcitonin is a hormone that plays a role in calcium and bone metabolism. When used regularly, it can slow the loss of bone. Fosamax, falls within a class of drugs called bisphosphonates. In clinical trials, Fosamax increased the bone mass as much as 8 percent and reduced fractures as much as 30 percent to 40 percent. Other drugs recently approved for the prevention and treatment of osteoporosis are Actonel (risedronate), a bisphosphonate similar to Fosamax, and Evista (raloxifene), a drug in a class known as selective estrogen receptor modulators. Both drugs have been shown to reduce the risk for fracture of the spine.

"There's another newer medicine called Forteo," says Stone, "which is actually the only medicine available that actually rebuilds bone structure. Forteo can actually rebuild some of the walls." Side effects include nausea, and you have to follow your doctor's directions carefully in the morning to avoid risk for esophageal ulcers and irritation.

Other side affects, with Fosomax in particular, include problems for people having major dental work done - they experience resorption or disappearance of bone in the jaw. "We recommend if people are going to be having some major dental work that they not go on the medicine, or if they're on it, to stop it for the duration."

What does Dr. Stone do to keep her bones healthy? "I drink 3 glasses of milk a day, I get sunlight, and I exercise."

While the best time to start preventing osteoporosis is in childhood, it's never too late to take steps to keep your bones as strong and healthy as possible.

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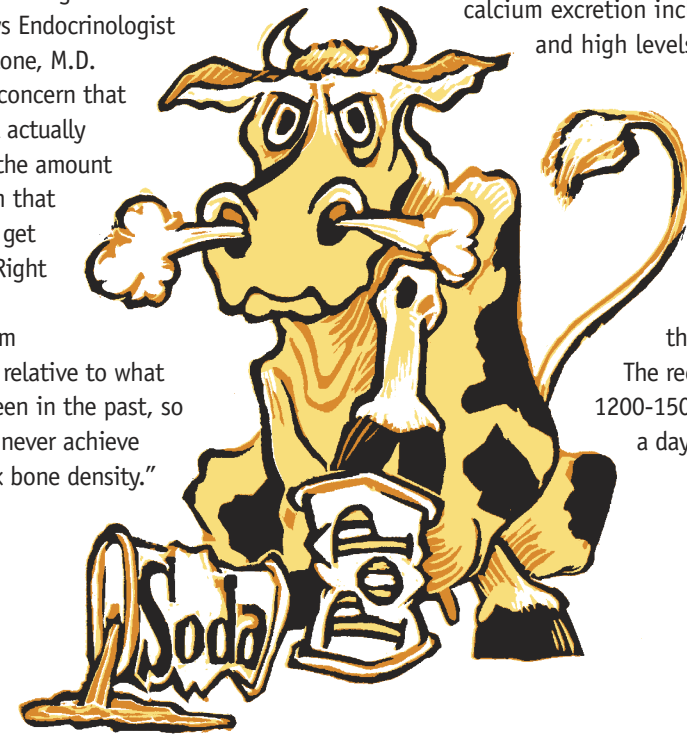
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**Kids - Growing Strong Bones for Life**

The diet and lifestyle of children and teenagers will have a big impact on their bone health for the rest of their lives. Preventing osteoporosis depends on two crucial factors: building the strongest, densest bones possible during the first 30 years of life, according to the Harvard School of Public Health.

"We do have some concerns because kids now are drinking sodas instead of milk," says Endocrinologist Lisa M. Stone, M.D. "There is concern that sodas will actually decrease the amount of calcium that is able to get to bone. Right now kids are calcium deficient, relative to what they've been in the past, so they may never achieve their peak bone density."



Nutritionist Maureen Boswell, RD, CD, agrees. "There is a fair amount of debate surrounding certain foods, such as soda pop," she says. "Studies I have seen thus far seem to indicate that the greater issue is that children and adults are replacing calcium-rich beverages - namely milk - with soda pop, versus soda pop actually depleting bone calcium. Other foods that may increase calcium excretion include caffeine, sodium, and high levels of dietary protein."

"I think it's imperative that parents are making sure their kids are getting adequate calcium," says Dr. Stone. "If not through dietary resources, then through a supplement. The recommendation for kids is 1200-1500 milligrams of calcium a day."



**Wenatchee Valley Medical Center**

Your source for news and information

**Boning Up on Osteoporosis**

Strong bones are an important part of overall health. Bones bear the weight of the body and work with muscles to hold it upright. Bones shield the delicate internal organs and the spinal cord. Not only would we be a messy puddle of skin without bones to support us, but bones store minerals for the entire body. Important bone-building occurs throughout childhood, adolescence and into adulthood. During this critical time our bodies are building strong and dense bones. This process peaks by age thirty when bones are at their strongest and most dense. After that, bones require constant maintenance. Although we often think of bones as inert or static, they are actually living tissue continually being broken down and reformed.

"If you look inside the bone, it looks like a honeycomb," says Endocrinologist Lisa Stone, M.D. "Our bones are constantly getting remodeled. From the time we're born to the time we die, there's a race that's going on inside the bones. We have cells that are chomping walls away, and cells that are patching."

Up until about the age of 30 the patching cells dominate, and bones increase in density. But after age 30, the cells that break down the bone work at a higher rate than the patching cells, and bone density begins to deteriorate.

"There is a steady rate of bone loss that everyone experiences," says Dr. Stone. "Even in women who are taking adequate amount of calcium and getting weight-bearing exercise, there is still going to be about a 1% bone density loss per year. If they have good bone density to start with, that may be enough to keep them in a healthy range until they're elderly."

Bone loss is painless and silent. Often it's not until a bone is fractured that you discover your bone density has deteriorated. "Osteoporosis is where you've lost enough bone that you're at significantly increased risk of fracturing a bone," says Dr. Stone. "The most common fractures are compression fractures in the



spine. The spine is our main structural weight bearing column, and it is constantly getting bent and twisted. With mechanical forces on a weak bone, at some point it can push it to the point of breaking. Hips, wrists and even ribs are also common fracture sites as bone mass deteriorates. People can break a rib coughing."

Osteoporosis leads to 1.5 million fractures per year according to the National Institutes of Health. It threatens 34 million Americans, mostly older women, but older men get it too. These numbers are predicted to rise as the population ages. "Women after menopause can lose 5 percent of their bone density in a year as compared to the normal rate of 1 percent," says Stone. "Men also experience osteoporosis, although it tends to

occur about ten years later than women. Men who are low on testosterone or who have been on steroids are at risk. Some medications can increase bone loss. Young athletic women who are without periods may be at risk."

Preventing osteoporosis depends on two crucial factors: building the strongest, densest bones possible during the first 30 years of life and limiting the amount of bone loss in adulthood. If you're over 30, there are a number of steps you can take to help limit bone loss. To keep your bones strong and slow down bone loss, eat a diet rich in calcium and vitamin D, exercise, and don't drink in excess or smoke.

Calcium is necessary for bones to stay strong, and every cell in the body needs calcium to work properly. Ninety-nine percent of the calcium in our body is stored in bones. Muscles and nerves depend on calcium to

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