

RHEUMATISM

Practice Newsletter

SPRING 2019

Osteoporosis Treatment ... What's in the Pipeline?

BY LOUISA A. ZIGLAR, MD, FACR



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MD FACP CCD

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MD FACP

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MD FACP

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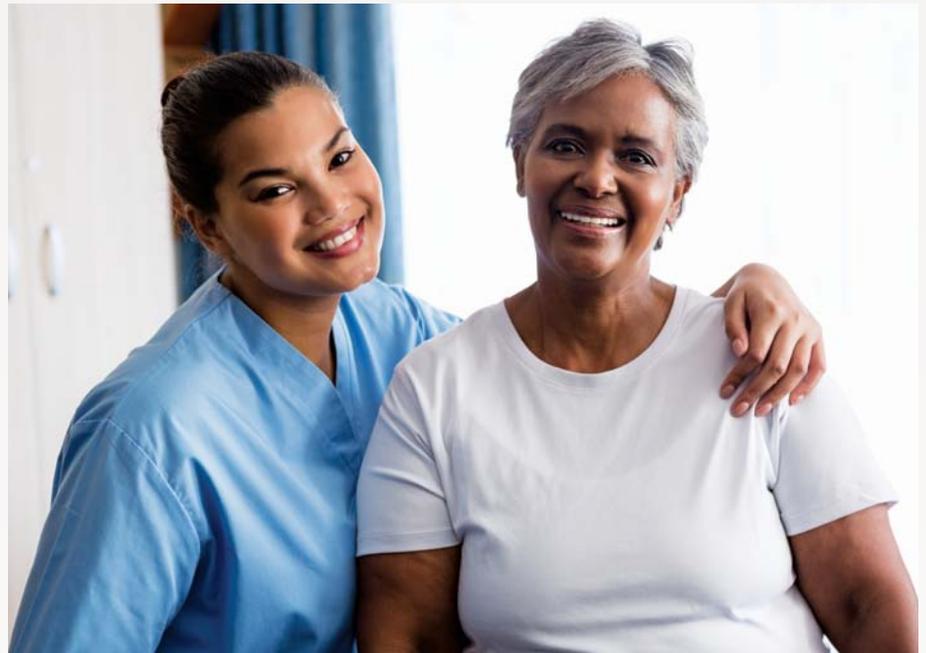
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MD FACP FACP RHMSUS

Louisa S. Ziglar
MD FACP



Osteoporosis is a bone condition whereby bone becomes brittle and more likely to fracture. This loss of bone strength is a result of a decrease in bone content (its density) and its ability to absorb day-to-day shock (its structural integrity). Normal bones have good density and structural formation to withstand the shock of a mild fall.

The U.S. Census Bureau projected there will be 72 million baby boomers (women and men age 51-72) in 2019. Studies have suggested that among people over 50 years of age, one in two women and up to one in four men will break a bone due to osteoporosis. Because of its high incidence, osteoporosis is now routinely screened in post-menopausal women and treatment for osteoporosis should be considered when it is diagnosed.

During an office visit for treatment of osteoporosis, there are important non-medicinal components that have to be addressed first. These include proper diet, possible calcium and vitamin D supplementation (you can't build a good house without good material!) and exercise. Weight-bearing exercises in which your bones feel the weight of your body (such as walking) are recommended.

continued on back inside cover...

In case you missed it, there's a new lower-cost rheumatology medication: The Biosimilar

BY ANGUS WORTHING, MD, FACP, FACR

WHAT EXACTLY IS A BIOSIMILAR?

Well, you may know what biologics are – highly complex medicines made in living cell mixtures that are given as injections or infusions for autoimmune diseases like rheumatoid arthritis, psoriatic arthritis, lupus, and other conditions. Many of the drugs administered at ARISE are biologics. Think of biosimilars as a little like a “generic” version of biologic drugs. The difference between a generic and a biosimilar is that a generic contains the exact same active ingredient as its brand name drug, whereas a biosimilar is proven to be highly similar to its brand name biologic, yet it can have slight differences that do not have an effect on the way the drug works. Slight differences are expected due to the large size and complexity of biologic drugs.

Because biologics are more complex than regular “small molecule” medicines (such as pills), the Food and Drug Administration (FDA) requires much more rigorous analysis before approving biosimilars compared to generic drugs. The FDA has approved 17 biosimilars as of this writing (March, 2019), but, due to patent disputes and manufacturer decisions, only two of the biosimilars approved to treat autoimmune diseases are available. They are biosimilars to Remicade (Inflectra and Renflexis). Many more will become available in the next few years. The list of FDA-approved biosimilars is here: www.fda.gov/drugs/.

Each biosimilar is administered in the same way, with the same dose and frequency as its brand name biologic. Biosimilars appear to be quite safe and effective based on rigorous data from the FDA approval process, as well as numerous clinical studies, and experiences in Europe and other



countries where biosimilars already have been used for several years.

WHY TAKE A BIOSIMILAR? Because it could cost less than its brand name biologic. For example, biosimilars to Remicade are currently about 15% less expensive and appear to have prompted lower prices for Remicade. It is hoped that biosimilars will help lower the high cost of prescription drugs and improve access to breakthrough treatments for people with autoimmune diseases in the U.S.

Find out more about biosimilars at the FDA, or my blog at the American College of Rheumatology's SimpleTasks site here: <http://simpletasks.org/biosimilars-what-patients-need-to-know/>. I also published a white paper for doctors regarding biosimilars with colleagues at the American College of Rheumatology last year, available here: www.rheumatology.org/Portals/0/Files/ACR-White-Paper-Science-Behind-Biosimilars.pdf.

Dr. Worthing is chair of the ACR's Government Affairs Committee.

Practice News

Looking to learn more? Join the ARA family by becoming a fan on one or all of our digital media platforms. You will get educational tips, news about what is happening at ARA as well as inspiration. To join, use these urls:



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FUN RHEUM:

Unscramble each of the clue words. Copy the letters in the numbered cells to other cells with the same number.

RICTIPOAS SIRTITRAH

22				8					

24													

RATHISTR

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RHEUMINATION:

Technology-related overuse injuries: Emergence of Text Thumb, Text Claw, Selfie Elbow, and Text Neck

BY ADEY BERHANU, MD, FACR

Smartphone, tablet, and computer use are on the rise. In the U.S., approximately 95% of Americans own a cell phone, nearly three-quarters own a personal computer and approximately half own tablets, according to the Pew Institute of research. It is estimated that most adults spend 10 hours or more a day consuming electronic media. Along with increased access and use of these devices, there has been a parallel increase in technology related injuries.

Repetitive Strain Injuries (RSI) cause pains of muscles, tendons, or nerves due to repetitive movement or overuse, high-intensity activity without rest, and poor posture – all of which are associated with frequent tablet or computer use. Below is a review of common technology related overuse injuries:

DE QUERVAIN'S TENOSYNOVITIS: "Texting Thumb"

De Quervain's is an overuse injury resulting in inflammation of one or both of the two tendons that connect the thumb to the forearm muscles. The patient experiences pain along the thumb and outer wrist, and swelling also can occur. Patients may experience difficulty gripping or using the thumb. Pain is often provoked by gripping with the thumb or making a fist. The diagnosis is clinical and often confirmed with a positive Finkelstein's maneuver (pain along tendons of thumb/wrist when the thumb is placed within a closed fist). Treatment includes conservative measures such as immobilization with a thumb spica splint, rest, ice, and over-the-counter non-steroidal anti-inflammatory drugs (NSAIDs). For persistent cases, cortisone injections can be administered. In severe cases, surgery can be considered.

CARPAL TUNNEL SYNDROME:

Feature of "Text Claw"

Carpal tunnel syndrome is a local neuropathy due to compression of the median nerve as it passes through the wrist.



There are several causes of carpal tunnel syndrome. A common source is repetitive stress of wrist tendons resulting in inflammation and enlargement of those tendons, which can compress the median nerve. The median nerve has both the sensory and motor branches which innervate the wrist, base of the hand and fingers from thumb to half of the ring finger. Therefore, median nerve compression can lead to symptoms of tingling, numbness, pain, or weakness of the wrist, hand and fingers. Symptoms tend to be most severe at night or when first waking in the morning. Diagnosis often is clinical but may require an electromyogram (EMG) and nerve conduction study or ultrasound to assess disease severity. Treatment involves resting the wrist in a neutral position with wrist splints. Other treatment options include NSAIDs, ice, cortisone injection, or, in severe and refractory cases, carpal tunnel release surgery.

EPICONDYLITIS (TENNIS/GOLFER'S ELBOW): "Selfie Elbow"

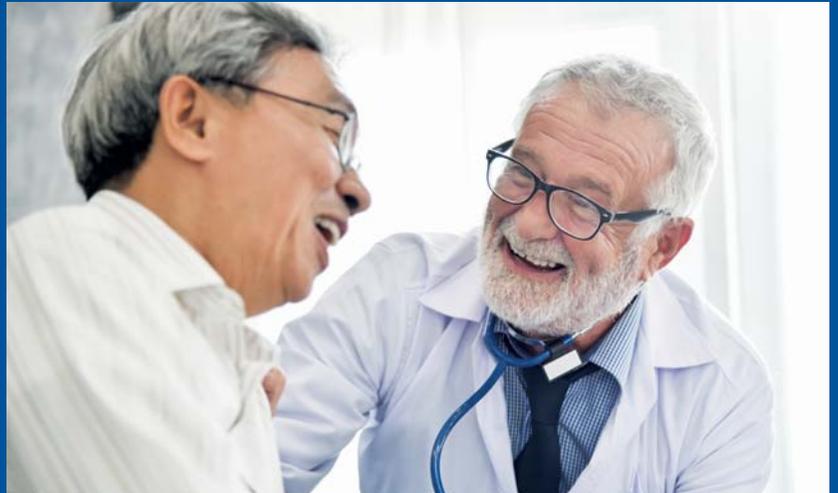
Epicondylitis is tendinosis or inflammation of the tendons attached at the

elbow due to overuse. Patients will have elbow pain and weakness of forearm muscles. Symptoms are aggravated by palpation of the elbow overlying the epicondyle – the bony protuberances on either side of the elbow. Treatment includes rest, NSAIDs, use of counterforce brace, and physical therapy. Recovery can be slow and take up to 12 weeks.

CERVICAL STRAIN/CERVICAL DISC PAIN: "Text Neck"

The average head weighs 10lbs when the spine is in neutral position, however, bending the neck downward, for example to look at a laptop or use a smartphone, can increase the stress on the neck to an additional 35-50lbs of pressure. This can result in strain of the cervical paraspinal muscles causing neck pain and stiffness with neck movement. Such repetitive, prolonged poor posture can affect the discs in the spine, the collagenous structures in between each of our spinal vertebrae, which can facilitate further degeneration, or disc bulging or herniation. Symptoms include neck pain and stiff-

Success Stories



ness, pain/tightness across the shoulders, headaches, or neck weakness. The diagnosis of cervical strain is clinical and does not require advanced imaging. Treatment involves neck stretching and strengthening exercises or physical therapy, heat to relax muscles, and NSAIDs. In refractory cases, trigger point injections can be considered.

In summary, increased personal use of smartphones, tablets and computers has led to an increase in soft tissue injuries due to overuse. These conditions can be treated easily but the foundation of treatment involves rest from the activity causing repetitive strain injury. Other treatment modalities include splinting, NSAIDs, and physical therapy.

TAKE HOME POINTS:

- Prevention is the best!
 - Use devices wisely: use index finger instead of thumbs while texting
 - Raise your computer screen or bring cell phone to eye level
 - Maintain healthy posture
 - Take frequent breaks
- Rest is key. Avoid repetitive motions by splinting, stopping overuse activity and modifying behavior.
- Seek medical attention for persistent symptoms.
- Physical therapy often is recommended.



“The Doctors at ARA are incredibly patient, understanding, and proactive in their approach to your inflammatory illness. I ABSOLUTELY Love Dr. Ziglar -- I was with my prior Rheumatologist for 13 yrs. Trusting a new doctor with my medical condition was one of the hardest changes I ever had to make... But, Dr. Ziglar is worth the change!!!”

– Patient

“Dr. Kaiser is extremely thorough, very respectful, and communicates clearly. She patiently worked with me, taking my priorities into account, to find the best treatment option for me. Dr. Kaiser provides excellent care. Also, the practice can provide many tests (x-rays, blood draw) on site, thereby obtaining results quickly or immediately and therefore speeding the care process.”

– Patient

Our patients say it best when it comes to explaining how ARA helps them manage their conditions and improve their lives. And reading their comments often helps educate and support other current or prospective patients.

We invite you to share your success story by going to Yelp, Google or Healthgrades. You can select either your physician or the specific office location to post your story.



healthgrades™

Cardiovascular Disease in Rheumatoid Arthritis

BY GRANT H. LOUIE, MD, MHS, FACR

Cardiovascular disease (CVD) remains the leading cause of death in the United States. Rheumatoid arthritis (RA) is now fast becoming considered a major CVD risk factor among traditional ones, such as high blood pressure and high cholesterol. RA is no longer thought of as a disease of only the joints.

RA is a chronic condition in which the body's own immune system attacks its own joints by mistake. This results in joint inflammation. Patients experience joint pain and swelling that can make doing normal daily functions more difficult. Dressing, holding a utensil to eat, and getting up and down stairs may be harder to do without help. Untreated disease eventually may lead to permanent joint damage and severe physical disability.

Because RA is a systemic disease, other organs and tissues in addition to joints can be affected. A growing number of medical research studies have reported on the harmful effects of RA on heart health. The arteries that supply oxygen and nutrients to the heart can get blocked in patients with RA even when they do not have other major CVD risk factors. This can lead to a heart attack and possibly even death.

Patients with RA have a higher CVD burden compared to the general population. It is estimated that their CVD risk is increased by 1.5 to 2 times.



Most doctors believe that having untreated or undertreated RA is what increases the risk of heart disease. Patients with chronically active RA are more likely to have heart attacks than those with controlled disease. Researchers believe the heart arteries become permanently damaged from inflammation over many years. How this happens exactly is not well understood. But researchers think the lining of the heart arteries gets damaged from direct inflammation. This contributes to hardening and blockage of the passageway for the heart to receive the necessary constant supply of oxygen and nutrition it needs.

Harmful forms of cholesterol are often higher in patients with RA. Medicines such as non-steroid anti-inflammatory drugs (NSAIDs) and steroids used to

treat RA also have been associated with higher risk of CVD.

Rheumatologists have learned that the best way to lower the risk of heart disease in patients with RA is to first control joint inflammation. They may use traditional medicines that lower the immune system, such as methotrexate. If RA remains active, patients may be placed on a biologic drug that further dampens the body's immune response. Research studies have shown that RA patients who have less inflammation in their bodies than those with more inflammation are less likely to have heart disease. Patients with RA should be examined carefully to see if they have traditional CVD risk factors. These should be identified and treated aggressively.

Much more research is needed to develop a CVD risk calculator that takes into consideration the presence of RA. There are a number of such risk predictors already, however, these do not factor in RA. Armed with this knowledge, both patients and their doctors will gain a better appreciation of the effect of RA on heart health. This can lead to a meaningful dialogue on ways to lower CVD risk. Rheumatologists are encouraged to identify RA as early as possible and treat it as aggressively as possible. The ultimate goal is to achieve disease remission. RA patients also should be screened regularly for traditional CVD risk factors and get those under control.

WALK
to **CURE**
ARTHRITIS

In honor of Arthritis Month, our physicians and staff are participating in the Arthritis Foundation's Walk to Cure Arthritis in Frederick, MD, on May 18th. Please join our team to support this worthy cause. For anyone who would like to make a donation, you may visit: <https://events.arthritis.org/index.cfm?fuseaction=donordrive.teamList&filter=team&searchTerm=&eventID=807>

Also, in May, we are participating in several events to bring awareness about specific diseases and conditions that affect many of our patients. They include:

- Arthritis Awareness Month
- Psoriatic Arthritis Action Month
- World Autoimmune Arthritis Day
- Osteoporosis Month
- World Lupus Day
- National Gout Awareness Day

CARROT AND ZUCCHINI GINGERBREAD WITH TOASTED ALMOND OIL and Honey-Ginger White Balsamic Glaze

INGREDIENTS:

<i>1 1/2 cups whole wheat flour</i>	<i>1 Tbsp. freshly grated ginger</i>
<i>1 cup finely grated zucchini</i>	<i>1 tsp. cinnamon</i>
<i>1 cup finely grated carrot</i>	<i>1/4 tsp. cloves</i>
<i>1/2 cup toasted almond oil</i>	<i>1/4 tsp. allspice</i>
<i>1/2 cup molasses</i>	<i>1/2 tsp. salt</i>
<i>2 large eggs</i>	<i>1/2 tsp. baking soda</i>
<i>1 1/2 cups brown sugar</i>	<i>1 cup hot water</i>

GLAZE:

1 cup powdered sugar
1 Tbsp. honeyginger
white balsamic

DIRECTIONS:

Preheat oven to 350°F. Grease 9" x 5" loaf pan with toasted almond oil.

Combine flour, baking soda, cinnamon, salt, allspice, and cloves in a large bowl. Whisk well.

In a separate bowl, combine the almond oil, brown sugar, molasses, ginger and whisk well. Add the carrot and zucchini.



Add the flour mixture in three parts, alternating with the hot water, beating until flour is just incorporated. Pour into prepared pan and bake until a toothpick inserted in the middle comes out clean, about 45 minutes. Cool cake in pan for 10 minutes, then turn over onto a rack to cool completely.

Whisk the powdered sugar and honey ginger balsamic and drizzle over the cooled gingerbread.

Osteoporosis Treatment ...What's in the Pipeline?

Continued from front page...

However, after proper diet and exercise, and exclusion of other treatable medical causes of osteoporosis, one still may need further treatment. Since the arrival of denosumab (Prolia) in 2010, no medication has been released with a new mechanism of action to treat osteoporosis. More important, a medication that helps to significantly improve the density of our long bones has been lacking.

This January, a medication named romosozumab was approved in Japan for treatment of osteoporosis in those with high risk for fracture. Romosozumab is a new medication that targets the sclerostin protein, which is a protein that has been found to lead to bone loss. In 2016, the *New England Journal of Medicine* published a study of more than 7,000 postmenopausal women, with half treated for one year with romosozumab and the other half treated with a placebo. At the one year

mark, the treatment group was found to have a 73% lower risk of new spine fracture than those on the placebo. Hip bone density was found to increase by 2.6% after one year.

Although the results were promising, due to concerns over increased risks for cardiovascular events, the FDA did not approve the medication in 2017 and requested further testing. As of 2019, the FDA advisory board recommend 18 to 1 for the FDA approval of romosozumab with additional warnings for possible cardiovascular events. Although not yet approved, the FDA often agrees with the recommendations of its advisory board, and the release of this medication is likely. For patients with severe osteoporosis who were unable to tolerate current medications, or are in need of a treatment that can target the hip bone, this will be an added new option for the osteoporosis treatment armamentarium.

RHEUMORS

Arthritis & Rheumatism Associates, P.C.
2730 University Blvd. West, #310
Wheaton, MD 20902
301-942-7600



RHEUMORS

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EDITOR:

Daniel Tucker, CEO

MEDICAL EDITOR:

Evan Siegel, MD, FACR

DESIGNER:

Brenda Brouillette RN, BS -
Business Development Specialist

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POINTS ON JOINTS:

Back to Health Series

BY DAVID BORENSTEIN, MD, MACR, MACP

Low back pain is a complaint associated with 60 different illnesses. No single therapy works for all of these problems. The most common problems that people have are mechanical in origin. Mechanical disorders are associated with overuse of a structure like muscles, or changes associated with growing older.

Many individuals with mechanical forms of low back pain improve over a period of time measured in days to weeks. Both non-drug and drug therapies can be helpful in speeding recovery.

EXERCISE

Movement is necessary to keep the back flexible and strong. Walking on land or in the water can be helpful without jarring the spine. One should do the kind of exercise that is comfortable without increasing pain significantly. A general 30-minute exercise program should include a warm-up period, aerobic exercise like walking or running on a treadmill, core abdominal strengthening, and a cool-down period. Exercise programs are best done three times a week. Examples of exercises can be found at www.drboorenstein.com. Physical therapists, like those at Arthritis and Rheumatism Associates, can tailor an exercise program to your specific needs. A frequently asked question is whether a physical therapist or a personal trainer is the most appropriate professional to get fit. I recommend a physical



therapist for individuals who are having pain. A therapist will get you back to a pain-free state. Personal trainers are good for improving function at a time when you are pain-free.

COMPLEMENTARY THERAPIES

Acupuncture, yoga, and stress management are among a number of complementary therapies indicated for the treatment of low back pain. Some of these therapies are alternatives to exercise (yoga). Others are non-drug forms of pain management like acupuncture and massage therapy. None of these complementary therapies have been studied adequately to know their proven benefit for the treatment of low back pain. However, for the most part, these therapies are relatively risk free. They may offer a reasonable option where the risks associated with drug therapies outweigh their benefits in specific individuals.