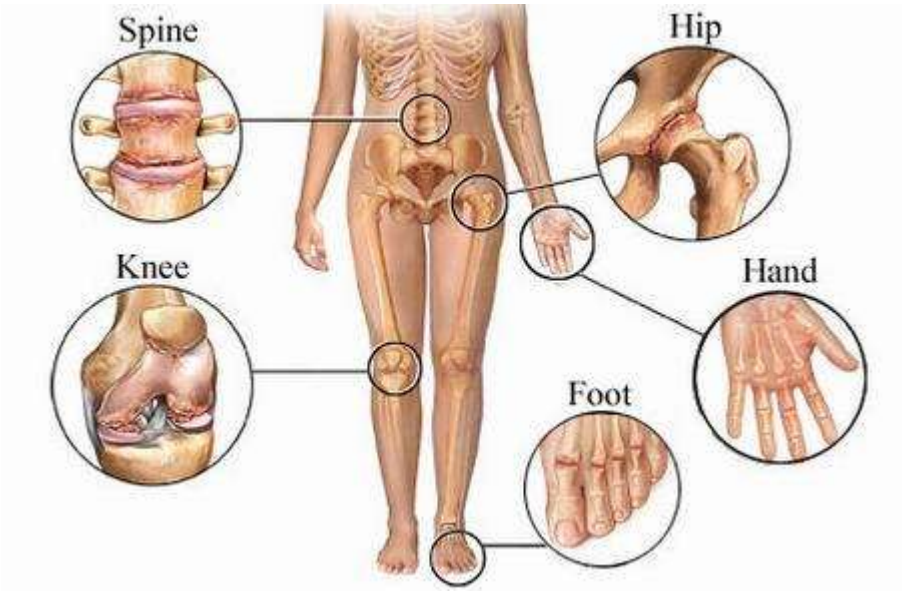
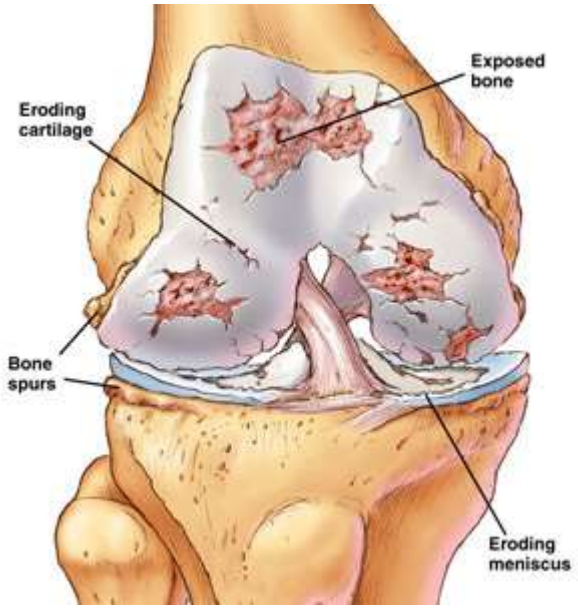
Osteoarthritis (OA) and natural remedies





1, OA is a degenerative, chronic painful crippling disease;

2, Dehydration and acid buildup are the main cause and predispose to breakdown and loss of cartilage.

3, exercises do not increase the risks for OA, instead, it is the way to nourish the joints.

4, enemy of joints: obesity, smoking, dehydration, poor diet, acid buildup…

5, natural remedies of OA

The human being is the greatest Creation, human joints are wonder designs

- One-hundred-year-old Fauja Singh, ran an entire marathon in Toronto in 2011.
- Only days before his historic feat, he accomplished something just as incredible: He set eight world age group records in one day — running the 100 meters in 23.14, the 200 meters in 52.23, the 400 metres in 2:13.48, the 800 meters in 5:32.18, the 1500 meters in 11:27.81, the mile in 11:53.45, the 3000 meters in 24:52.47 and the 5000 meters in 49:57.39.
- Read more: http://www.beliefnet.com/columnists/news/2011/10/100-year-old-sikh-runs-toronto-marathon.php#ixzz34VVKWQiP

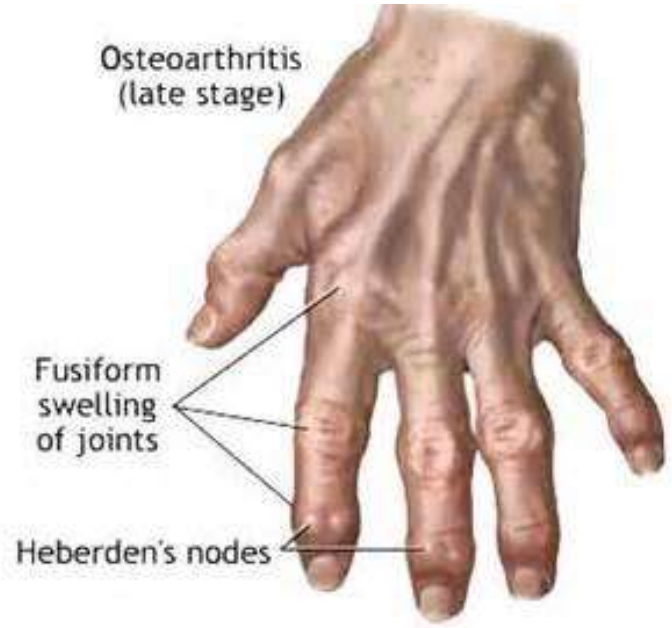
- *Singh finished full marathon in 9h25m55s at 100year old*

Osteoarthritis (OA) facts

- 1, Among adults 60 years of age or older the prevalence of symptomatic knee OA is approximately 10% in men and 13% in women (2). (USA)
- 2, no known cure, most suffers have to live on pain killers.
- 3. high crippling rate and poorer living quality.

. 4. OA is the most common reason for knee and hip replacement.

- *Osteoarthritis is a chronic, painful , disabling disease*



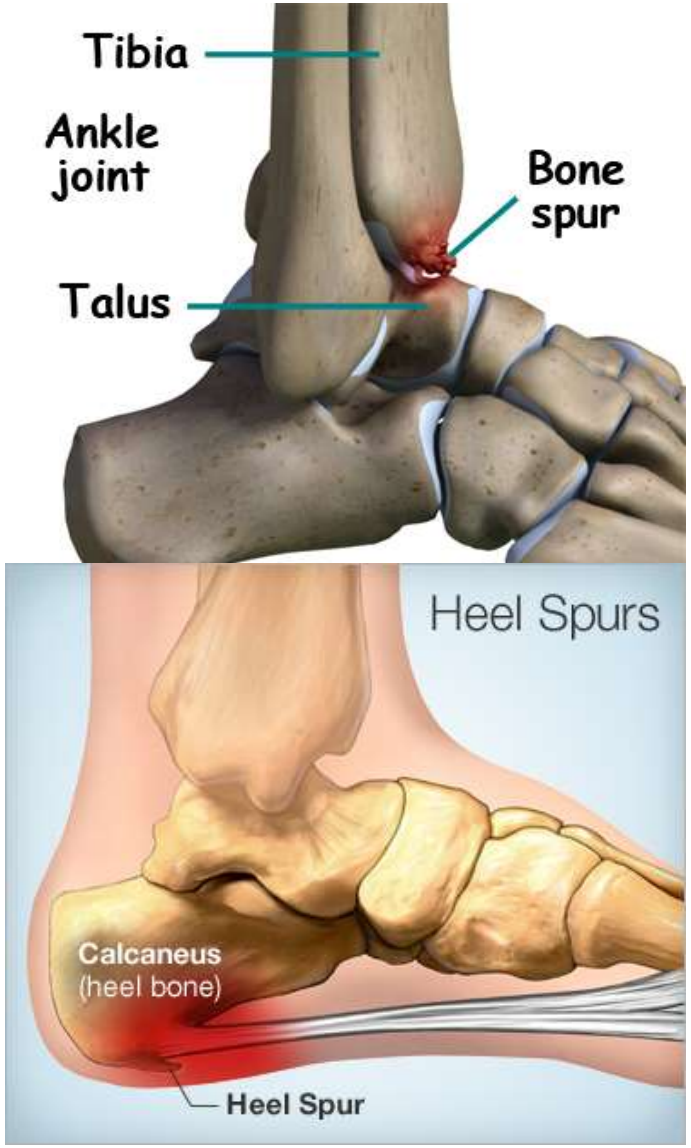
What is Osteoarthritis (OA)?

- OA is a degenerative joint disease, caused by wear & tear on the effected joints- breakdown and loss of cartilage.
- OA causes a deterioration of the cartilage and fluids that protect & cushion the bones of the joints involved.

- *OA =breakdown and loss of cartilage*

OA often causes new bone growth, forms Bone Spurs

- Bone spur is a benign, bony outgrowth that can develop along the edges of a bone.
- Bone spur is part of the ageing process, as body tries to repair the worn away cartilage and bone loss, as occurs with OA.
- Bone spur is also tied to cartilage damage causing inflammatory conditions.



OA gets no respects

- No Respect for sure
- “I have suffered from this disease for many years. At 48, I had bilateral hip replacement, anterior cervical fusion, and at 52 failed lumbar spine fusion which resulted in an infection (mrsa) which I am still on antibiotics for 3+yrs. I have been on NSAID's for many years. No RA doc wants my body, nor can I get help from my family physician. So, I am left with a pain management guy and a bunch of drugs. It sucks and I am only 57, yet I always hear "Well, you look fine". If people could only be "me" for a minute or two maybe they would understand. I break dishes and jars because my hands fail. I fall because I lose my balance. During the illness following the back surgery, I had to have a revision of the left hip. Now, I have no choice but to walk with a cane and am limited in walking distance for sure. All of this, and no one gets it. I wish someone would do some research and come up with better answers for us OA folks. We deserve better.”
- —melapri

OA is ignored by doctors

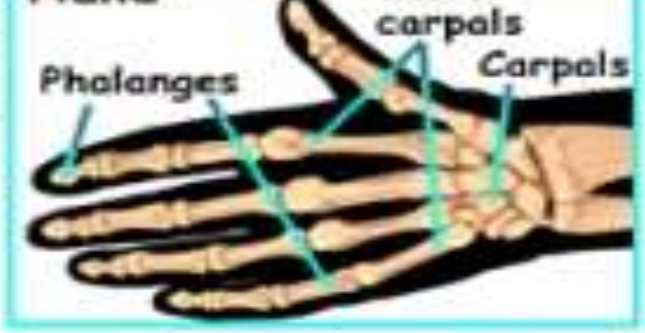
- Definitely minimized
- Definitely minimized because as they say it is "so common". Need help bad. I am so tired of it all: neck, shoulders/arms, fingers, hands, knees and now the hips are joining the pain areas. By now, something should be helping so many people with suffering, stiffness, and depression. We want to be able to function....not be dependent. Doctors should recognize our plight and think and do more to help to keep us all moving and having a purpose. I'm always dismissed by a doctor who says "Can't do anything for you, you have arthritis."
- —Guest Dorothy G

OA is a crippling disease

- Everyone's Knee Hurts
- Except for my wife, people don't see me in the late afternoon or at night. The morphine has stopped working and to get to the kitchen from the living room is pathetic. Most of the feet, ankles, knees and hip are severely lacking movement. I was running up to the store and my shoulders were so bad driving was a chore. Holding a hotdog bun with either hand was painful in the thumb/wrist area. I'm not going to go into the disc problems but I would like to meet someone who's in the kind of downword spiral I'm in. Everybody I talk to complains about a knee....
- —stepsherpa

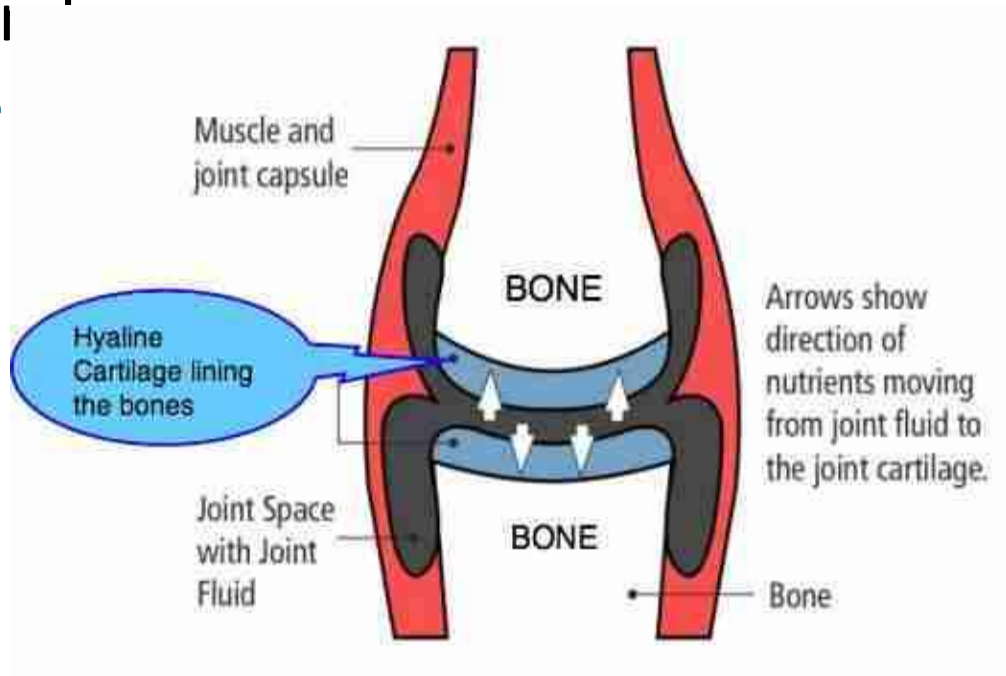
- *OA suffers are crippled with the Loss of mobility of the joints*

(Degenerative Joint Disease/ Osteoarthritis) Three Examples



The joints are designed to move(use or lose)-hyaline cartilage (HC)

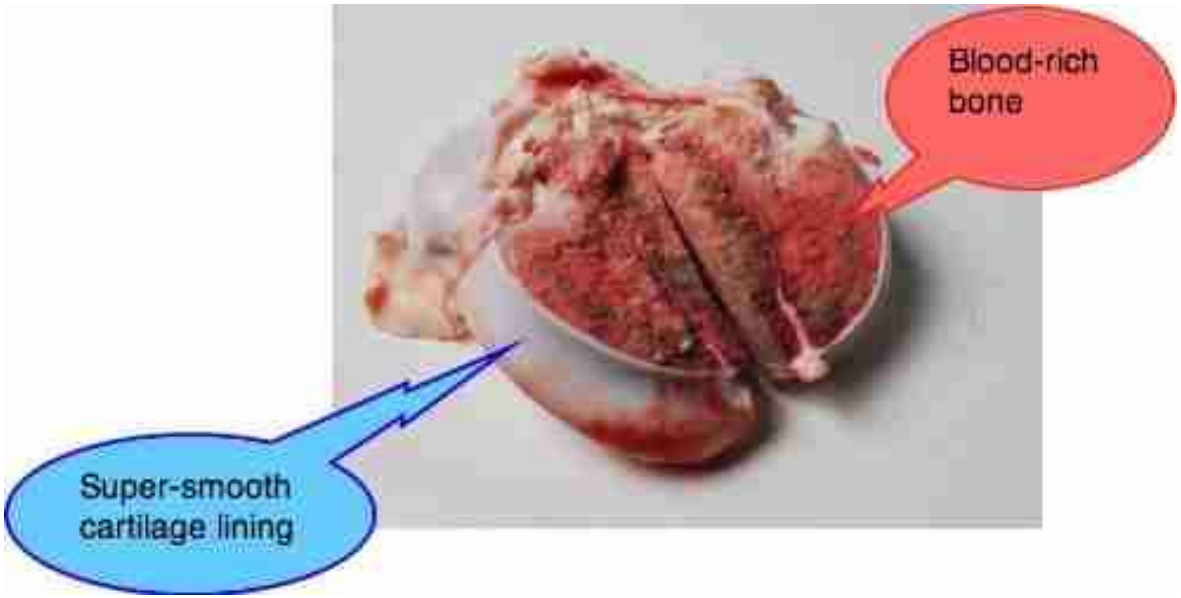
- Cartilage does not have blood supply to provide nutrients and oxygen. In order to receive adequate nutrition from seepage through the surrounding membrane, cartilage requires regular compression and decompression to absorb ("pull in") nutrients & stimulate remodeling a
- The white arrows show the movement of nutrients from the synovial fluid as it sloshes about in the joint to the hyaline cartilage on the ends of bones.



Hyaline cartilage-no direct blood supply

- Cartilage is very hard and slippery, serve as a shock absorber, allow bones in a joint to move with minimal friction between the opposing joint faces.
- About 85 percent of cartilage is water but it decreases to about 70 percent in older people

- *Bone is flooded with blood. Cartilage not.*



- Without that flow of fluid, carrying nutrients and oxygen, the hyaline cartilage soon begins to degenerate.

Chondrocytes are the only cells found in healthy cartilage

- Chondrocytes are the only cells found in healthy cartilage. They produce and maintain the cartilaginous matrix, which consists mainly of collagen and proteoglycans.

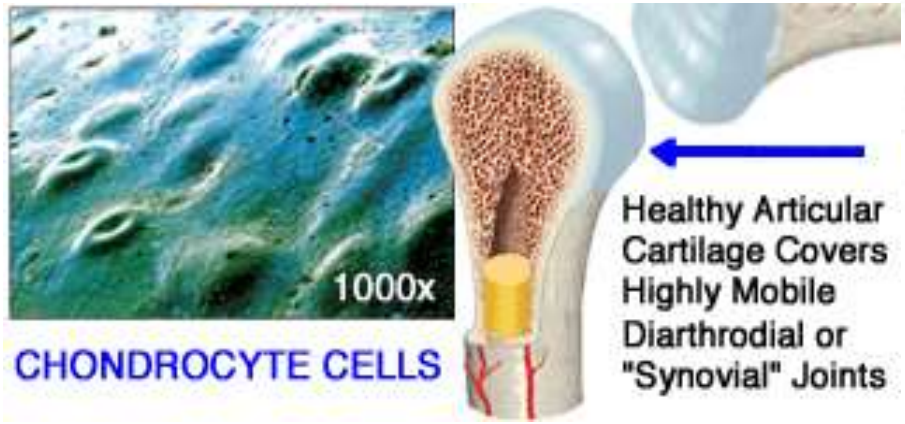
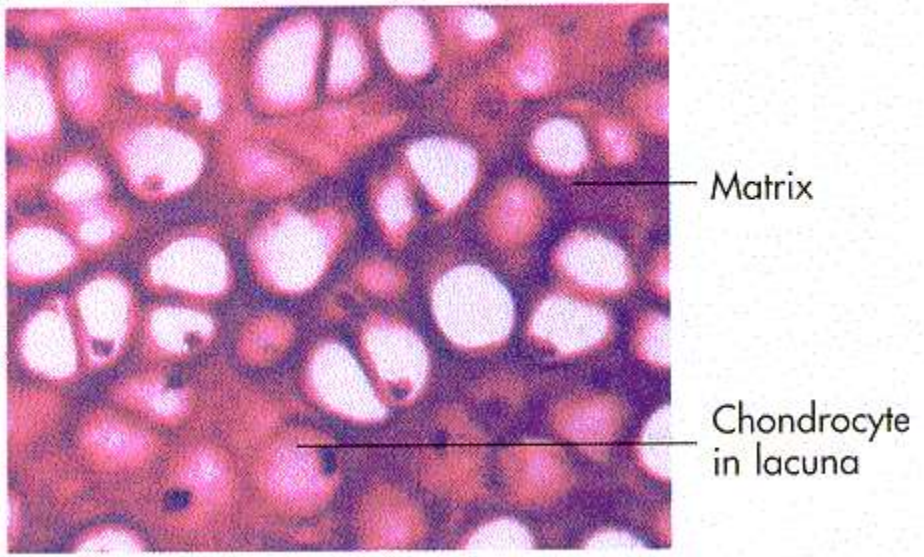
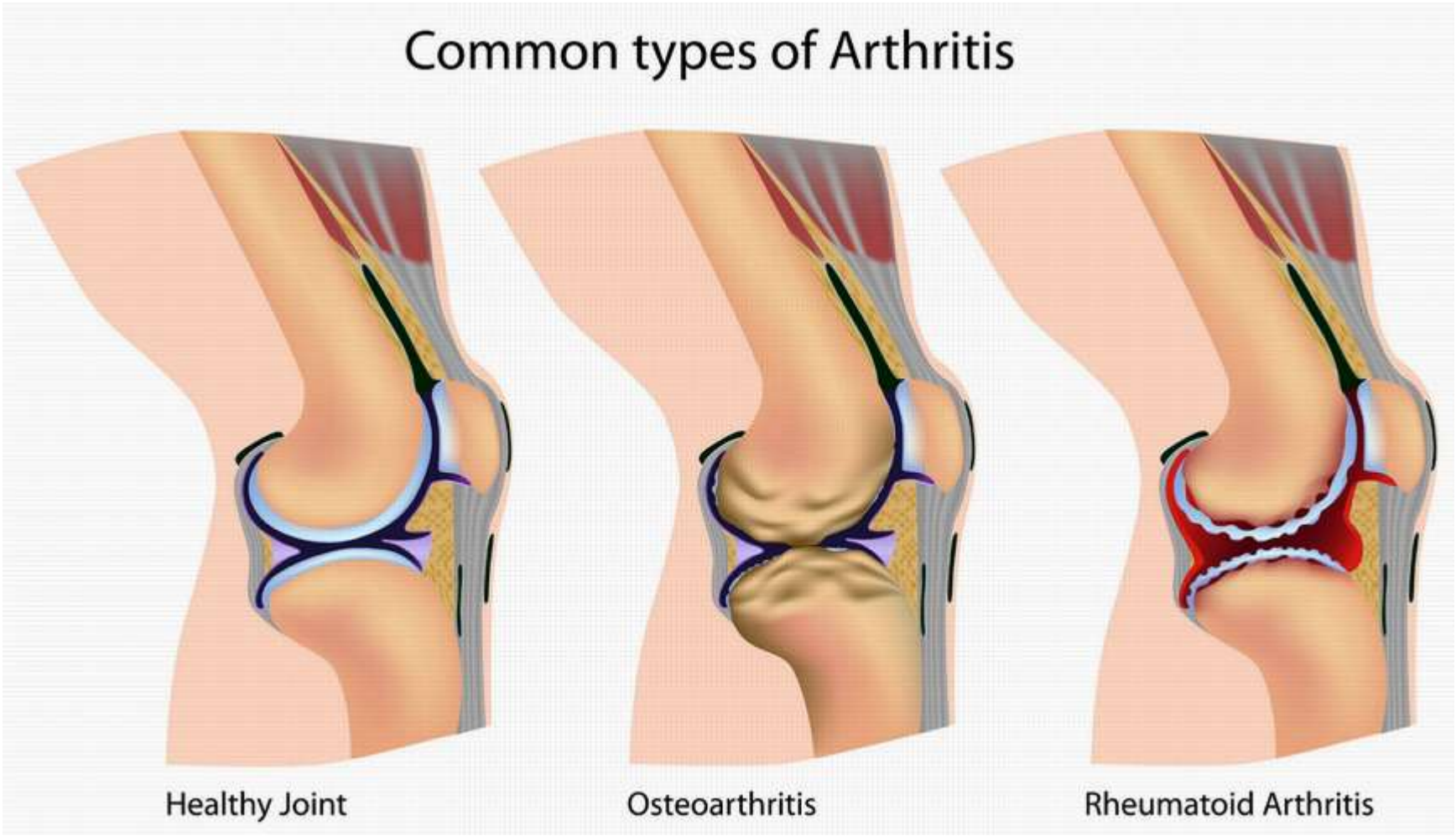


FIGURE 6–4 *Cartilage Tissue.* Photomicrograph shows chondrocytes scattered around the tissue in spaces called lacunae.



Breakdown and loss of cartilage causes Osteoarthritis



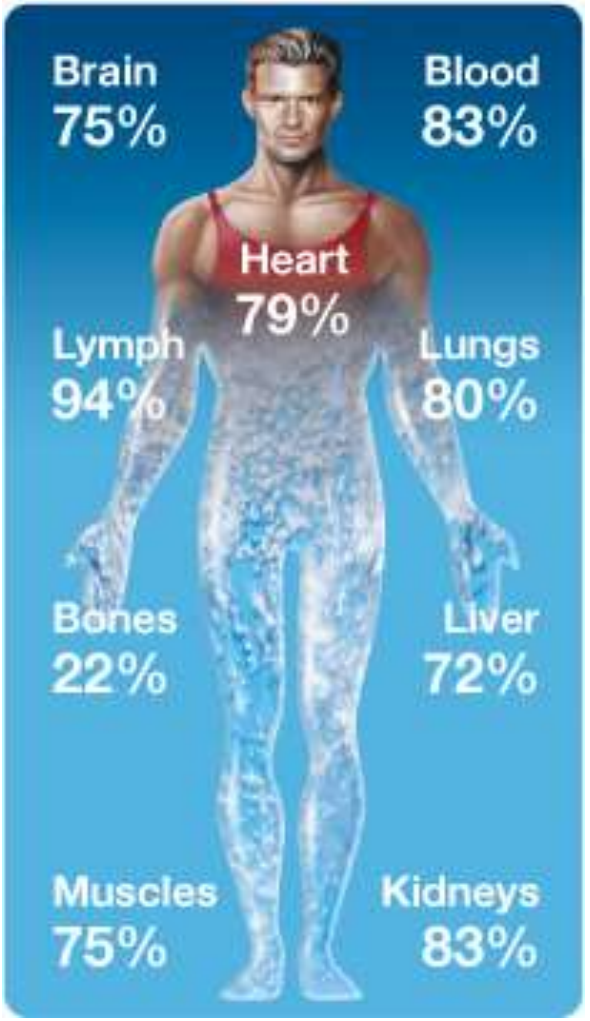
Osteoarthritis is a sign of water shortage in the painful joint

- Dr. F Batmanghelidj. M.D., Author of “Your Body’s Many Cries For Water”
- “Chronic dehydration is the root cause of many painful degenerative diseases, such as Arthritis, Asthma, Allergies, Hypertension, Headaches, Peptic pain, Angina, Joint Pains, Excess Body Weight and some Emotional problems including Depression…YOU ARE NOT SICK, YOU ARE THIRSTY! DON’T TREAT THIRST WITH MEDICATIONS”

- *About 85 percent of cartilage is water but it decreases to about 70 percent in older people. Ageing=drying.*

Dehydration predisposes to wear and tear

- Water sustain all life and accounts for 70% of the body weight.
- In dehydrated state, the body will lessen the blood supply to less important tissues like muscles, joints and skin.
- When cartilage starts to dry out, gliding produces greater friction and shearing stress. The cartilage becomes damaged and sets up a process of inflammation that leads to pain and stiffness.



No.1 Enemy of Cartilage- Obesity

- The force of 3 to 6 times a person's body weight is exerted across the knee while walking. In other words, being 10 pounds overweight increases the force on the knee by 30 to 60 pounds with each step taken while walking. The force across the hip is estimated to be 3 times body weight.

- Obesity is a risk for osteoarthritis and the major cause of weight-bearing knee OA.

Osteoarthritic Knee

Overweight stress and obesity associated inflammation predispose to OA

- The load exerted to the joints:

  while walking:

  to the knees; 3~6 times the body weight to the knees.

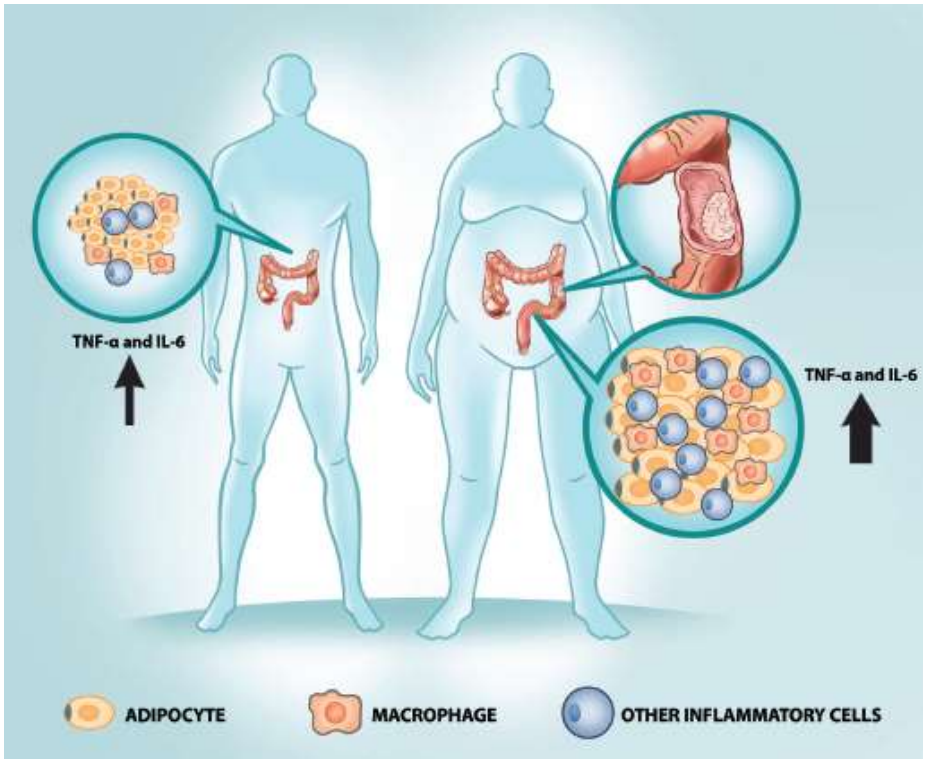
  to the hips: 3 times the body weight;

  while jumping:

  20 times the body weight.

Losing a pound results in a 4-pound reduction in knee-joint load.

- *It's well established that obesity is characterized by low-level chronic inflammation.*



Overweight/Obesity and Arthritis (adults ages ≥18 years)

- 15.9% of under/normal weight adults report doctor-diagnosed arthritis.
- 22.6% of overweight and 31.2% of obese Americans report doctor-diagnosed arthritis.
- 66% of adults with doctor-diagnosed arthritis are overweight or obese (compared with 53% of adults without doctor-diagnosed arthritis).
- Weight loss of as little as 11 pounds reduces the risk of developing knee osteoarthritis among women by 50%.

- http://www.cdc.gov/arthritis/data_statistics/arthritis_related_stats.htm

No.2 Enemy of Cartilage-Smoking

- All living tissue needs oxygen.

Nerve tissue, denied oxygen, dies within minutes. Cartilage takes a little long, but the process is essentially the same: starved of oxygen, cartilage ages much faster, and the chances of restoration are much less.

Smoking - a primary cause of osteoporosis

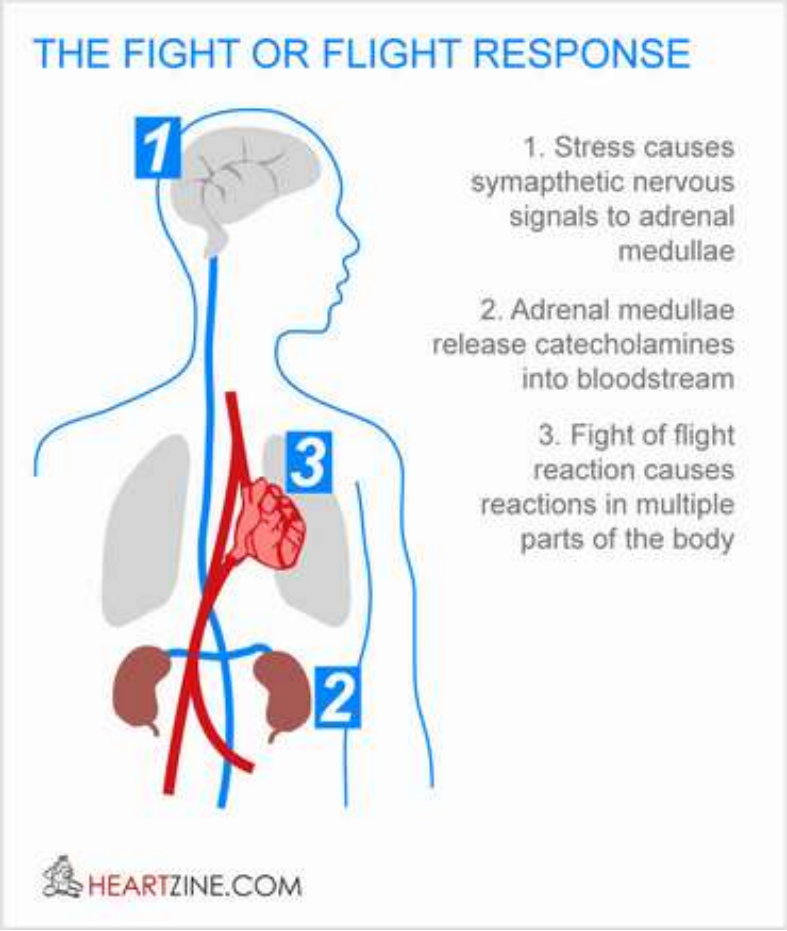
- Smoking depletes blood oxygen. It does so by nicotine attaching itself to red blood cells, replacing oxygen, on its ride to nicotine receptors in the brain.

Carbon monoxide (CO) in smoke depletes oxygen

- CO is one of the 4,000 or more chemicals in tobacco.
- When the smoke is inhaled into the lungs, CO is rapidly absorbed into the blood stream and binds with the hemoglobin in the blood, displacing life-giving oxygen, 200 times more effectively than oxygen does, forming carboxyhemoglobin (COHb).
- Smokers typically have blood COHb levels around ten times higher than non-smokers.

Smoking causes “fight or flight” response-reduces blood supply to synovial joints

- The body responds to “fight or flight “ stressors by secretes epinephrine hormones (adrenaline) which is a vasoconstrictor.
- Vasoconstrictors work to reduce the blood supply to the synovial joints, thus reduce production of synovial fluids-the lubricating shock absorbing fluids-that protect the articular cartilage.



No.3 Enemy of Cartilage-Poor diet

- Food rich in glucosamine and chondroitin and gelatine is needed for healthy cartilage;
- Omega-3 fatty acids from fish, nut (walnut) and flaxseed are good for healthy bone and it also has powerful anti inflammatory properties, as well as benefits for the heart and mind.

- *Fish, flaxseed walnut are goods sources for Omega-3*

Omega-6 oils are pro-inflammatory, too much causes joint inflammation

- Research has shown that individuals who consume foods with high levels of Omega 6 fatty acids actually have markedly higher amounts of pro-inflammation arachidonic acid in their cartilage, bone, and synovial fluid and as a result had substantial breakdown in their joints, i.e. the development osteoarthritis. Omega 6 oils are commonly found in various plants, nut and seed oils, i.e. vegetable oil, soy, safflower, sunflower, corn, almonds, cashews, etc.
- Nutritionists believe the optimal ratio of omega-6:omega-3 in foods is 3:1.

Cartilages are storage sites of fatty oil

- Interestingly, articular cartilage which is the smooth, white tissue that covers the ends of bones where they come together to form joints, is one of the very few body tissues that has substantial stores of lipid/fat deposits. Lipid droplets are accumulated by cartilage cells.

- The types of lipids/fats that accumulate by the cartilage cells determine if the fatty acids are protective or if they are destructive. The amount of arthritis actually correlates with the amount and type of fatty acid, and especially with the amount of arachidonic acid present within the cartilage cells.

- This means that higher levels of arachidonic acid, led to higher levels cellular breakdown in the cartilage and synovial fluid.

No.4 Enemy of cartilage- Immobilisation

- Studies have verified that joints that aren't moving normally become arthritic. Or, to put it differently, cartilage starved of fresh synovial fluid sloshing about the joint, layering the cartilage with a substance called Hyaluronic acid, rapidly loses it glistening white slippery properties. It's called Immobilisation Arthritis. The cartilage starts to die ... degeneration and pain ...

- Add to this, the waste products of cartilage metabolism cannot be quickly removed ...accumulation of acidic waste damages cartilages.
- Immobilisation of any joint, for any reason, cause the rapid onset of cartilage degradation.

No.5 Enemy of cartilage-oxygen deficiency

- J Rheumatol. 1977 Winter;4(4):334-42.
- Anaerobic and aerobic metabolism in articular cartilage.
- Lane JM, Brighton CT, Menkowitz BJ.
- Abstract
- Articular cartilage explants were incubated at various oxygen tensions and the results of 35SO4 and 3H-thymidine incorporation indicate that proteoglycan and DNA synthesis is depressed at low oxygen tensions. The studies of oxygen consumption and glucose/lactate metabolism in the cartilage suggest a shift in energy pathways as the oxygen environment is altered. In low O2 tensions chondrocytes follow anaerobic glycolysis while at physiologic oxygen tensions chondrocytes follow a combination of both aerobic and glycolytic metabolism. The data suggest that hypoxia, frequently found in inflammatory arthritides, would have deleterious effects on chondrocyte metabolism and would significantly impair any reparative potential of the injured chondrocytes.
- PMID: 604473 [PubMed - indexed for MEDLINE]

No.6 Enemy of cartilage-acid buildup in the body

- Sang Whang, engineer, scientist and successful inventor with many U.S patents and author of 'Reverse Aging' "Many different forms of arthritis and gout are the result of acid accumulation in the joints. It is the accumulated acid that damages cartilages and irritates the joints. Unfortunately, the joints are where the blood cannot carry out wastes easily.

- In today's medicine, there is no effective treatment for these types of degenerative diseases. Because it is painful, one instinctively takes pain killers; however, aspirin types are acidic and they can further irritate the joints. The sooner we accept the fact that these diseases are the result of too much acidic waste, the sooner we will find the cure for these problems."

- *Acid is corrosive, build up of acid damages cartilages…*

Studies reveal physical activity is beneficial to joint health

- Journal: Medicine & Science in Sports & Exercise
- Title: What Is the Effect of Physical Activity on the Knee Joint? A Systematic Review
- Author(s): Urquhart, Donna M.; Tobing, Jephtah F.L.; Hanna, Fahad S.; Berry, Paricia; Wluka, Anita E.; Ding, Changhai; Cicuttini, Flavia M.
- Finding(s) Brief: "This systematic review found that knee structures are affected differently by physical activity. Although physical activity is associated with an increase in radiographic osteophytes, there was no related increase in joint space narrowing, rather emerging evidence of an associated increase in cartilage volume and decrease in cartilage defects on magnetic resonance imaging. Given that optimizing cartilage health is important in preventing osteoarthritis, these findings indicate that physical activity is beneficial, rather than detrimental, to joint health."
- Published: 2011
- Web Address: http://journals.lww.com/acsm-msse/Abstract/2011/03000/What_Is_the_Effect_of_Physical_Activity_on_the.8.asp

Studies show Obesity makes walking and jogging more difficult

- Journal: Journal of Jilin University of Physical Eduction
- Title: A Study on Graded Assessment of Overweight Students' Performance in Long Distance Running by BMI Value -- With the students of Jilin University as subjects
- Author(s): Chi Huai; Jian Zhiqiang
- Finding(s) Brief: "The result shows that students' running capability is negatively correlated with their BMI values, and there is a very large gap between the performance of overweight students in long-distance and their normal peers."
- Published: 2011
- Web Address: http://en.cnki.com.cn/Article_en/CJFDTOTAL-JLTY201102029.htm

Stanford University studies find-jogging is not bad for the knees

- The long-term study reported in the Harvard Men's Health Watch finds that those who exercise are no more likely to develop arthritis, or show evidence of arthritis on X-rays, than sedentary people.
- A study published in the American Journal of Preventative Medicine, by researchers at Stanford University, followed a group of long-distance runners and compared their knees against a group of people who did much less exercise -- they also found that those that exercise are not at a higher risk for arthritis. Researchers have concluded, based on these studies, that jogging isn't bad for your knees in most circumstances.

Joint friendly natural remedies- Sunshine and vitamin D

- Vitamin D is vital in the care of hip pain because of its affect on hyaline cartilage growth.
- A vitamin D deficiency is linked not only to osteoporosis and broken bones, hip pain, but new research also links it to diabetes and metabolic syndrome.

- Your body makes vitamin D when your skin is exposed to the ultraviolet B (UVB) rays in sunlight. About 5 to 30 minutes of exposure to the skin on your face, arms, back or legs (without sunscreen) two times every week is enough.

Joint friendly natural remedies-baking soda

- taking baking soda every day will elevate your pH level and alkalize your body very quickly. This is crucial if you have arthritis because once the body is alkaline, relief from this disease begins almost immediately (no disease, including arthritis, can survive in an alkaline environment).

- The beauty of drinking baking soda is it provides massive benefits with no negatives (as long as you don't take more than two teaspoons a day). And as a natural arthritis remedy... it works like magic!.

Joint friendly natural remedies-baking soda taking with apple cider vinegar

- One of the most notable benefits people discover within a few short weeks of using this arthritis treatment (besides an amazing amount of relief from their arthritis pain and inflammation) is the enormous energy boost they receive. Taking baking soda with ACV prevents your digestive system from having to use up and waste its own internal bicarbonates, which results in a natural increase in energy.

Alkaline ionized anti-oxidant water-natural cure to relieve back, joint pain and osteoarthritis

- Joint pain and arthritis are basically a symptom of dehydration and too much acidity in the body. Pain killers do not solve the problem of pain in the joints and the back. They are only a temporary fix and cause more problems as they add to the body's acidity levels. Large amounts of Alkaline Ionized Restructured (super-hydrating) water drunk daily can help reverse arthritis and back and joint pain better than any pain killer available in the market. YOUR BEST SOLUTION TO RELIEVE BACK,
- JOINT PAIN AND ARTHRITIS

How does alkaline water cure OA?

- By drinking lots of alkaline, ionized water, acidic metabolites that irritate and inflame a pain site are floated out and into the blood stream to be eliminated. The super-oxygenation of the alkaline, ionized water brings more available oxygen to the cells which enhances vitality. Overall energy and get-up-and-go increases as the body cells have a cleaner environment. This process enhances nutrient absorption and allows the body to repair and replace damaged or diseased cells. The increased oxygenation and blood flow allows the body muscles and joints to move more easily and with less pain.

How the doctors say about alkaline ionized antioxidant water?

- Susan Lark M.D. Author of “The Chemistry of Success”

- “Drinking Alkaline Water will help to neutralize over-acidity and restore your buffering ability. Alkaline water should be used when conditions of over-acidity develop, such as gout, digestive issues, pain, cold, flu or bronchitis. Also, like vitamins C, E and Beta Carotene, alkaline water acts as an antioxidant because of its excess supply of free electrons. This can help the body against the development of heart disease, strokes, immune dysfunctions, and other common ailments.”

Relief of OA pain with alkaline ionized anti-oxidant water

- OSTEOARTHRITIS PAIN RELIEF / DIGESTION

- “When I started to drink this delicious Alkaline Water, it took about 4 weeks and all my arthritic pains in my thumb, wrists and knee disappeared, never to come back. It helps my digestion and makes me feel clean inside and out.”
- ~ A. Kalda

Osteoarthritis pain /acid reflux relief with alkaline water

- “I had been suffering with osteoarthritis for years, and it was getting worse. My physician indicated that I would have to deal with the pain for the rest of my life, but that “we” could manage the pain. He prescribed Arthrotec and Pantoloc. The combo was brutal on my gastrointestinal tract. Pantoloc is a Calcium blocker that reduces the amount of acid in the stomach, which means that you can’t fully digest your food. The pain became worse, so I began using a chiropractor to help manage this debilitating problem. I was spending about $700 per month for pain management and was getting worse. I would have bet 1,000 to 1 odds that the alkaline ionized water wouldn’t work for me. Fortunately, I would have been wrong as the results were amazing. Not only did my arthritis go away and stay away, but my acid reflux problem that had been bothering me for about 15 years also disappeared. It is now 8 months later and I have not taken a pill since I started drinking the water. I returned to playing and coaching basketball, and now I can golf and play tennis again.”

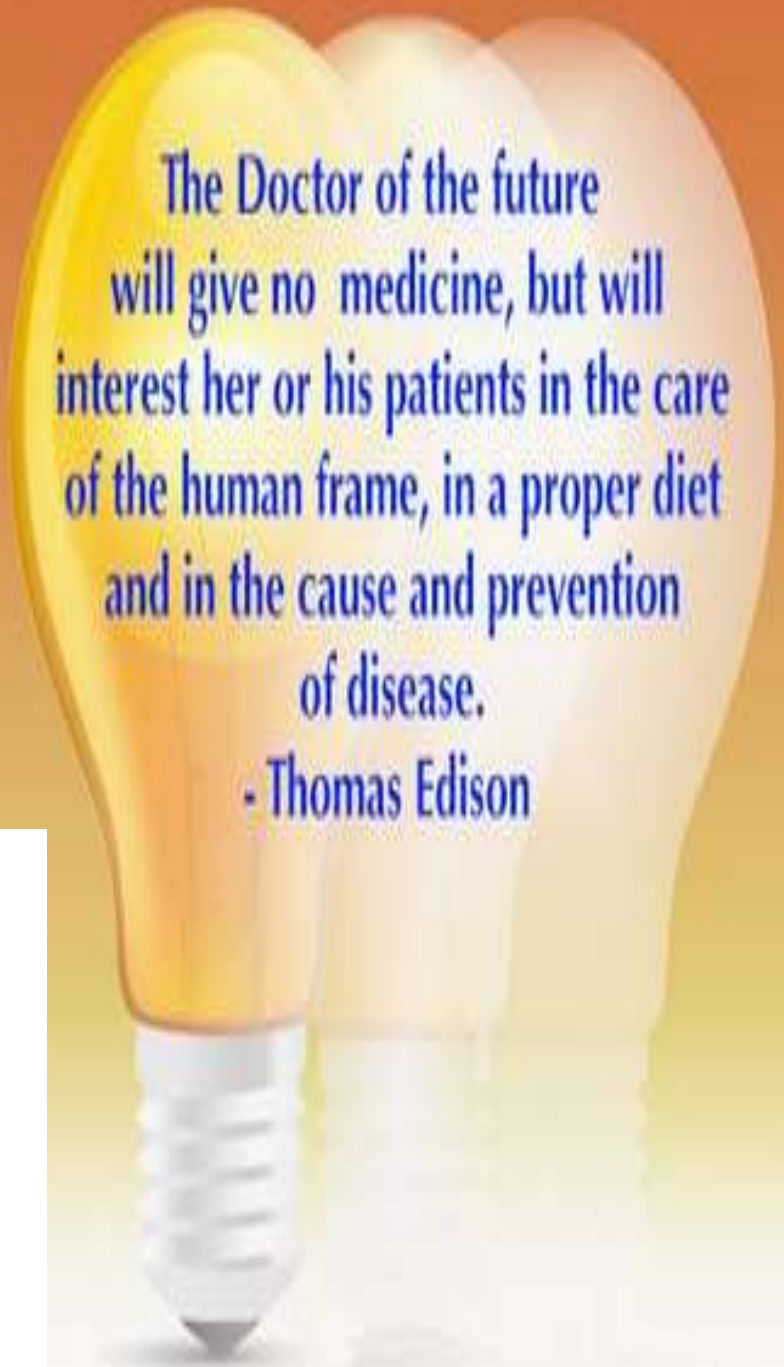
Joint friendly natural remedies- cycling

- Cycling is one of the best low impact aerobic exercises.

- Achieve conditioning and causes fewer injuries to muscles and joints.
- Heal rather than hurt the joints:

Joint friendly natural remedies- cycling

- Cycling reduces the risk of arthritis caused by worn out cartilage.
- Cycling is gentler on joints and can actually strengthen them because the cycling motion provides **nourishment** that builds up cartilage.
- Cycling is especially helpful for those with arthritis of the lower limbs who are unable to pursue sports that cause impact to the knees and other joints.



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Sports Nutrition TCM

Health Management

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