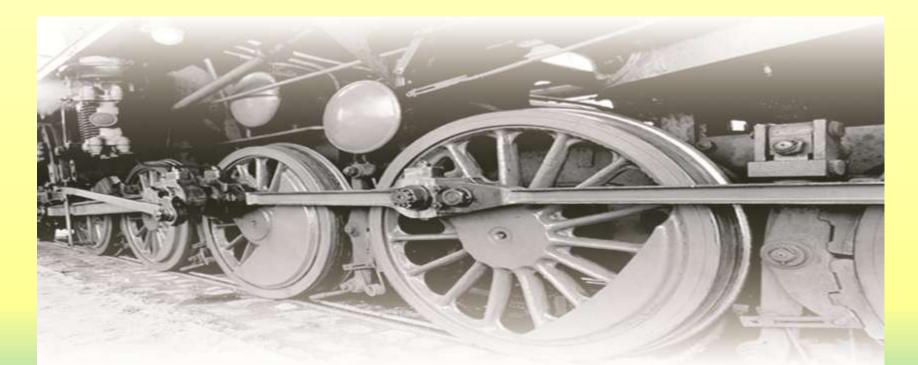
Alfa Cart



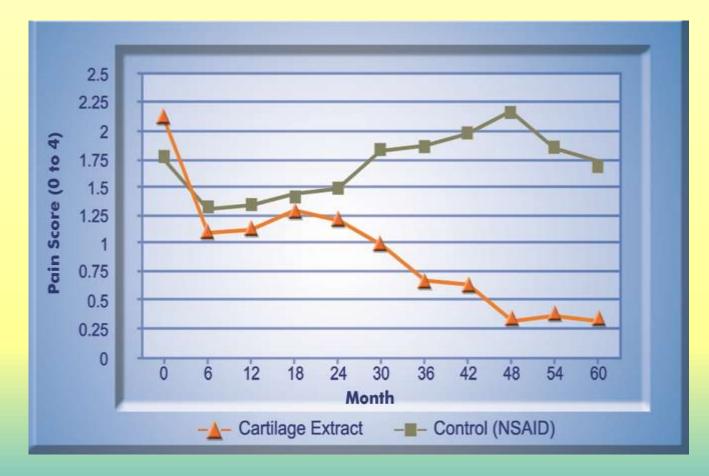
Do we need grease?

- □ It is The *grease* For The Joints
- Powerful and non-toxic Anti-inflammatory agent with angiogenesis inhibition properties.

- □ Reduces Joint Pain.
- Decreases Inflammation.
- □ Stimulates cartilage matrix repair.
- Inhibits enzymes that breakdown cartilage.
- □ Preserves Joint Space.
- □ Highly Tolerable.

- Shark cartilage extract is rich in Glucosamine and Chondroitin.
- Glucosamine Promotes the formation and repair of cartilage.
- Chondroitin promotes water retention and elasticity in cartilage and inhibits enzymes that breakdown cartilage

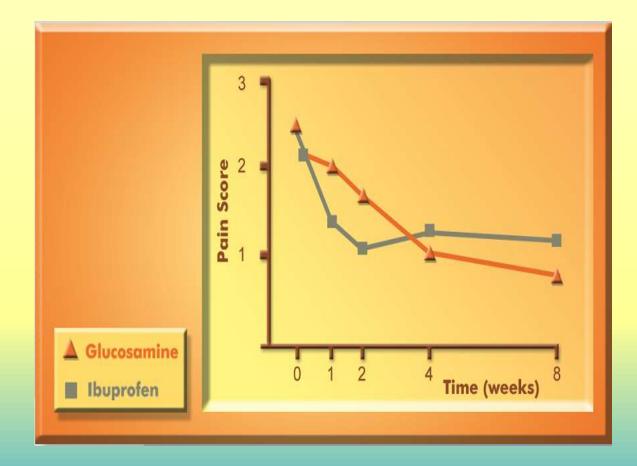
A five year double-blind study on 3 groups, with a total of 147 osteoarthritis



R.Brown, J.weiss. Annuals of rheumatic diseases, Vol.47; 1988

- Chondroitin inhibits collagenase factor that has a key role in angiogenic process.
- It inhibits certain enzymes present in synovial fluids which may damage joint cartilage (elastase and hyaluronidase).

Double blind clinical evaluation of glucosamine VS Ibuprofen



Lopez Vaz A.curr Med Res Opin. 1982;8(3):145-9

Provides effective symptomatic relief for patients with osteoarthritis of the knee.

Modify the progression of arthritis over a 3-year period

Glucosamine: a review of its use in the management of osteoarthritis. <u>Matheson</u> <u>AJ</u>, <u>Perry CM</u>. <u>DruAging.</u> 2003;20(14):1041-60

Its composition is:

Shark Cartilage Extract

740 mg

Cartilage: The Key to Healthy Joints

Cartilage is 65 to 80 percent water.

The remaining three components—collagen, proteoglycans, and chondrocytes.

Collagen A family of fibrous proteins, collagens are the building blocks of skin, tendon, bone, and other connective tissues.

Cartilage: The Key to Healthy Joints

□**Proteoglycans** Made up of proteins and sugars, strands of proteoglycans interweave with collagens and form a meshlike tissue. This allows cartilage to flex and absorb physical shock.

Chondrocytes Found throughout the cartilage, chondrocytes are cells that produce cartilage and help it stay healthy as it grows.

Osteoarthritis

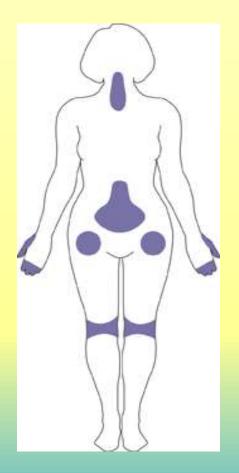
- Osteoarthritis is the most common type of arthritis and is seen especially among older people. Sometimes it is called degenerative joint disease or osteoarthrosis.
- Osteoarthritis mostly affects cartilage, the hard but slippery tissue that covers the ends of bones where they meet to form a joint.

Osteoarthritis

- Healthy cartilage allows bones to glide over one another. It also absorbs energy from the shock of physical movement.
- □ In osteoarthritis, the surface layer of cartilage breaks and wears away. This allows bones under the cartilage to rub together, causing pain, swelling, and loss of motion of the joint. Over time, the joint may lose its normal shape.

Osteoarthritis

What Areas Does Osteoarthritis Affect?



Osteoarthritis most often occurs in the hands (at the ends of the fingers and thumbs), spine (neck and lower back), knees, and hips.

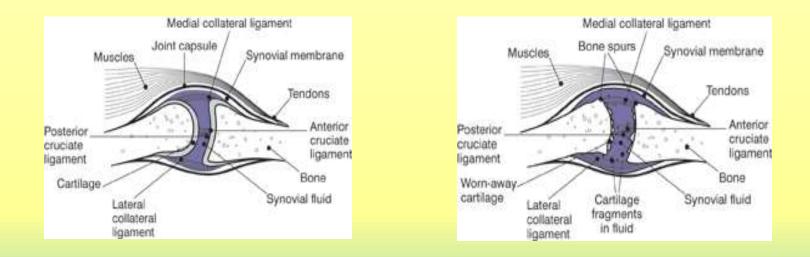
A Healthy Joint

In a healthy joint, the ends of bones are encased in smooth cartilage. Together, they are protected by a joint capsule lined with a synovial membrane that produces synovial fluid. The capsule and fluid protect the cartilage, muscles, and connective tissues. A Joint With Severe Osteoarthritis

With osteoarthritis, the cartilage becomes worn away. Spurs grow out from the edge of the bone, and synovial fluid increases. Altogether, the joint feels stiff and sore.

A Healthy Joint

A Joint With Severe Osteoarthritis



Progression Of Osteoarthritis

Normal cartilage is a-vascular

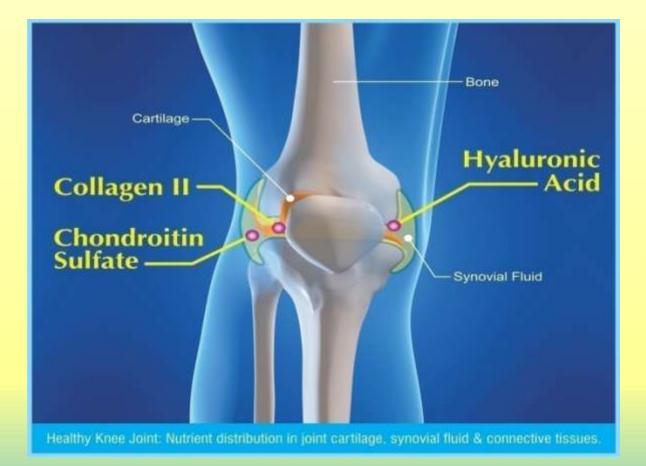
- The synovial fluid of osteoarthritis patients contain substance called ESAF (endothelial cell stimulating angiogenesis factor), this factor is associated with the vascularization and degradation of joint cartilage
- Osteoarthritis can improve slowly with
 1- Exercise & physical therapy
 2- Oral non-steroidal anti-inflammatory
 3-Corticosteriods injection into the joint spaces

Current Treatment's Problems

Local irritation associated with the use
 Treat the symptoms only

So

The focus has changed from how do we treat symptoms to how do we stop progression of osteoarthritis.



Alfa Cart The Grease For The Joints

Glucosamine

- Is an amino sugar
- Promotes the formation and repair Of cartilage
- Keeps the joint lubricated
- Glucosamine has a long-term combined structure-modifying and symptom-modifying effects.
- gluosamine sulphate is a disease modifying agent in osteoarthritis.

Bone ans cartilage metabolism research Unit, University of leige, Belgium. jyreginster@ulg.ac.be Lancet 2001 Jan. 27: 357(9252):251-6.

Glucosamine

glucosamine has shown promising results in modifying the progression of arthritis over a 3-year period. Glucosamine therefore prove to be a useful treatment option for osteoarthritis.

Bone ans cartilage metabolism research Unit, University of leige, Belgium. jyreginster@ulg.ac.be Lancet 2001 Jan. 27: 357(9252):251-6.

Chondroitin

Is a carbohydrate
 Promotes elasticity in cartilage
 And
 Inhibits enzymes that break down cartilage

Chondroitin sulfate inhibits the progression of the joint space narrowing

A one-year, randomized, double-blind, multicenter study versus placebo Department of Rheumatology, Institute of Physical Medicine, University Hospital Zurich, Switzerland. daniel.uebelhart@usz.ch Osteoarthritis Cartilage. 2004 Apr;12(4):269-76

Chondroitin

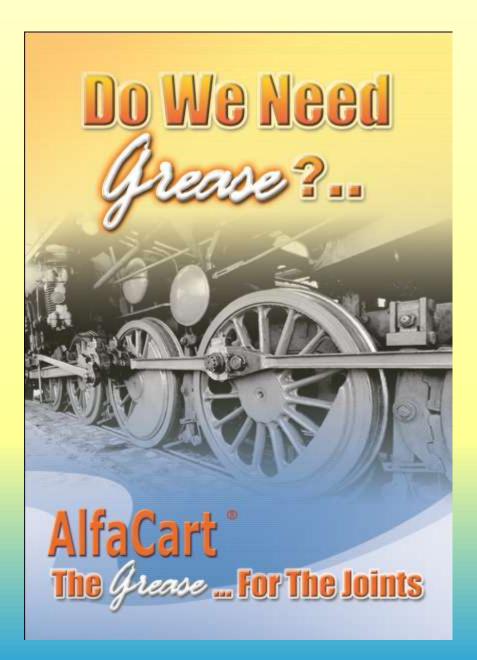
- The oral administartion of Chonroitine sulphate decrease pain and improve knee function.
- It has prolonged effect known with symptom-modifying agents for OA.
- Chonroitine sulphate has structuremodifying properties in knee OA.

A one-year, randomized, double-blind, multicenter study versus placebo Department of Rheumatology, Institute of Physical Medicine, University Hospital Zurich, Switzerland. daniel.uebelhart@usz.ch Osteoarthritis Cartilage. 2004 Apr;12(4):269-76 Glucosamine and chondroitin sulfate supplementation to treat symptomatic disc degeneration.

Oral intake of glucosamine and chondroitin sulfate for two years associated with disk recovery (brightening of MRI signal) in a case of symptomatic spinal disc degeneration.

long-term glucosamine and chondroitin sulfate intake may counteract symptomatic spinal disc degeneration, particularly at an early stage.

van Blitterswijk WJ, et al; "Glucosamine and chondroitin sulfate supplementation to treat symptomatic disc degeneration" <u>biochemical rationale and case report</u>. BMC Complement Altern Med. 2003 Jun 10;3:2. Epub 2003 Jun 10.



Thank You



The Grease For The Joints