



## Take Control of Joint Health

It's no coincidence that the number of people with painful joint conditions is increasing along with the number of aging Baby Boomers and overweight and obese people. Both age and obesity lead to increased joint problems.

As we age, our muscle size and strength, bone mass and density all decrease. We also have less elastic tendons and ligaments so it's easier to suffer overuse injuries. And joint disease may also take hold, causing joint inflammation and cartilage degeneration.

The two most common forms of joint disease are osteoarthritis and rheumatoid arthritis. In osteoarthritis, cartilage that normally cushions the joints breaks down, causing bone to rub against bone. The disease usually affects weight-bearing joints such as the knee, hip and spine. Rheumatoid arthritis is a degenerative disease that results from the body attacking its own joint tissue.

Exercise is important to keep joints flexible and the muscles around the joints strong. It also strengthens bone and cartilage tissue and can relieve pain. Walking, swimming, cycling and strengthening and stretching exercises are especially helpful for people with joint issues. But avoid exercises that put too much strain on the already taxed joints — that means skip aerobic classes, running or competitive sports activities. Other important steps in relieving joint pain are to quit smoking, reduce excessive alcohol consumption, and lose weight if you're overweight.

In addition, ongoing research is finding that alternatives such as nutritional therapy are providing both pain relief and restored functionality that is virtually unachievable through drug therapy alone. This issue of *Science & Health Today* is dedicated to a look at the latest findings in joint nutrition.

To Your Health,



**Dr. Carl W. Hastings**  
Reliv Vice Chairman and Chief Scientific Officer



## The Painful Toll of Joint Disease

- Worldwide, more than 355 million people have arthritis.
- Musculoskeletal disorders and diseases such as arthritis account for more than one-half of all chronic conditions in people over age 50 in developed countries.
- By 2030, the number of people with arthritis is expected to rise by 40 percent.
- Two of the most common forms of arthritis are osteoarthritis and rheumatoid arthritis.
- Obesity is the number one cause of osteoarthritis because the extra weight stresses the joints.
- Nearly two in three people who are obese will develop knee osteoarthritis over their lifetime, but losing 15 pounds can cut knee pain in half.
- According to a 2008 World Arthritis Day "Think Positive" survey, 97 percent of people with arthritis indicated the condition affects them or people they care about emotionally and 5 percent of them said it may lead to depression.
- Clinical evidence shows arthritis/rheumatism can have a debilitating effect on people's lives by restricting physical, psychological and social function.
- The most frequent reason for joint replacement surgeries is to relieve pain and disability caused by severe arthritis.

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## Find Nutritional Relief

Joint pain is sometimes treated with pain relievers such as non-steroidal anti-inflammatory drugs and other prescription medications. But many drugs lead to unpleasant side effects and may become ineffective over time.

Another option is nutritional therapy to relieve joint pain, reduce inflammation and swelling, improve function and sometimes even repair damage.

Collagen is an essential nutrient in joint health. Collagen is the part of cartilage that gives it shape, flexibility and strength. As we age, we lose the ability to make collagen, which is why we often have stiffness and decreased flexibility in the joints.

A recent study at Penn State University found collagen hydrolysate improved joint pain, mobility and inflammation in athletes. Many other studies support this finding.

Other effective nutrients for joint health include specific herbs such as Ashwagandha, Boswellia and Borage oil.

- Ashwagandha has anti-inflammatory and antioxidant properties. It also affects the immune system, which is especially beneficial for rheumatoid arthritis. A clinical study published in the *Journal of Ethnopharmacology* found a formula containing Ashwagandha in combination with other herbs and minerals was effective in relieving pain severity and disability due to osteoarthritis.
- Boswellia offers anti-inflammatory and pain-relieving effects. A study reported in *Arthritis Research and Therapy* shows an extract of Boswellia called 5-Loxin resulted in significantly improved pain scores and physical function scores in people with osteoarthritis.
- Gamma-linoleic acid (GLA) in Borage oil has anti-inflammatory properties that research shows can help in the treatment of rheumatoid arthritis. Over a 24-week study published in the *Annals of Internal Medicine*, Borage oil was proven to reduce tender joints and swollen joints by 28 percent in a group with rheumatoid arthritis.

All these herbs and more are contained in Arthffect® from Reliv, a patented nutritional supplement that supports healthy joint function. A key ingredient in Arthffect is Arthred®, a patented, predigested collagen powder that aids in manufacturing and repairing connective tissue.

The Arthffect formula combines the best of traditional Eastern herbal therapies with cutting-edge nutrients clinically proven to provide functional support and promote lifelong joint health.

## Pycnogenol May Bring Lasting Benefits

One of the latest ingredients on the war against joint disease is Pycnogenol®, an antioxidant natural plant extract from the bark of the French maritime pine tree.

A study published in the April 2008 edition of *Phytotherapy Research* shows Pycnogenol reduced osteoarthritis symptoms by 56 percent over three months. Relief was measured in joint pain, stiffness and physical function. Stiffness was reduced by 53 percent and physical function was increased 57 percent. Ankle and foot swelling decreased in 79 percent of people taking Pycnogenol. In addition, this group said their overall emotional well-being was enhanced by 64 percent.

And the benefits of Pycnogenol continue even after people stop taking the extract. A study in the August 2008 edition of *Phytotherapy Research* showed no relapse in symptoms even after Pycnogenol was discontinued for two weeks. This suggests that Pycnogenol's anti-inflammatory properties may actually help joints recover.

Pycnogenol is found in a variety of nutritional supplements, including Reliv Now®.



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