The knee joint is enclosed in a capsule that contains a lubricating fluid. The ends of the bones are covered with cartilage to prevent them from grinding together. One of the major components of cartilage is a protein called collagen. Over time, the cartilage in the knee wears down, leading to osteoarthritis of the knee. Treatments include pain management and, in severe cases, knee replacement surgery. However, it may be possible to rebuild the cartilage by encouraging collagen growth in the body with vitamins, supplements and other therapies. Always consult a physician before beginning any supplement or treatment program.

Step 1

Consult your physician about vitamin B3. Vitamin B3, also known as niacinamide, is available by prescription and, per Zoltan Rona, may improve joint cartilage. Those with liver disease should not take niacinamide.

Step 2

Take an amino acid supplement. Amino acids are the building blocks for all proteins, including collagen. Per Bales, author of “Osteoarthritis: Preventing and Healing Without Drugs,” an amino acid supplement may help stimulate collagen production.

Step 3

Try a vitamin C supplement. Per Rona, vitamin C is an important element in collagen formation. The Office of Dietary Supplements recommends up to 90mg for men and 75mg for adult women.



Step 4

Adjust your vitamin E intake. Vitamin E, per Bales, stimulates cartilage-building proteins in the body. The maximum dosing for adults is 15mg per day.

Step 5

Talk to your doctor about prolotherapy. According to Marc Darrow, M.D., head of the Darrow Sports and Wellness Institute, prolotherapy involves the injection of a chemical or natural irritant into the knee capsule to stimulate collagen growth. Keep in mind, however, that the National Center for Alternative and Complementary Medicine states that prolotherapy may be no more effective than a placebo and suggests that the therapy warrants further study.

Step 6

Take vitamin B12. B12, per Bales, B12 may not stimulate collagen growth but it does stimulate the stem cells in the bones, contributes to bone health and may improve joint strength. The recommended adult B12 dosage is 2.4mcg per day.

Things You'll Need

Vitamin B3

* Amino acid supplement
* Vitamin C
* Vitamin E

Vitamin B12