

KNEE PAIN IN RUNNERS



Knee pain can be one of the most common obstacles runners face and one of the most common reasons people stop running. By looking after your knees now, and taking the appropriate steps, supplements and nutrients, you can help to safeguard your knees for the future, prolonging your running lifespan. Essential fats, MSM, Vitamin C and Silica can all aid in protecting your knees.

Causes of Knee Pain

Patello femoral pain syndrome, also known as Runner's Knee, is often caused by the repetitive compression forces on the Patello femoral joint, where the patella (knee cap), and femur (thigh bone) meet. The patella slides over a groove on the thigh bone as your knee bends, if this action is overused, or if the kneecap moves either side of the groove, friction and irritation occur. The knee can make a crunching or clicking sound when bending, as the kneecap slips back into the groove. The articular cartilage under the patella helps the knee to bend and straighten smoothly, lubricating the joint. Pain occurs when the cartilage becomes soft and starts to deplete, known as chondromalacia patellae.

Weak or imbalanced quadriceps can pull the knee cap to either side of the groove, tight hamstrings can increase the pressure between the patella and femur, weak hip abductors or a tight illiotibial band can also pull the knees to one side, so it is important to strengthen and stretch these particular muscles in a balanced way.

Overpronation can also aggravate this problem, so it is wise to ensure you are wearing the correct trainers for your running gait. Sufficient cushioning is also imperative to protect joints, so be sure to replace your running shoes regularly, or use Sorbothane insoles. The advised life span of a running shoe is approximately 500 miles.

Treating Knee Pain

A common method of treatment can be remembered as RICE: Rest, Ice, Compression and Elevation. There are aids that can help support your muscles and relieve pain. Skins Compression Tights can be worn during or after exercise for support and muscle recovery. Closed or open patella knee supports can be useful when the knee is still weak or after injury. Rocktape or Mueller M Tape can be used to apply support and compression for instant pain relief. When applied correctly, KT Tape can realign the kneecap and hold it in place, taking the stress off the patello femoral joint.

Nutrition for Knee Pain

The right nutrition and supplementation is also a key factor to ensuring knee health. Methylsulfonylmethane (MSM) is an organic sulphur compound found in small amounts in onions, garlic, cruciferous vegetables, bee

pollen, maca and protein-containing foods, such as nuts, seeds, milk and eggs, however for noticeable improvement, supplements are required. MSM is vital in the formation of keratin, collagen and elastin (disulphide bonds) which give flexibility, tone and strength to muscles, bones, joints, internal membranes, skin, hair and nails. When combined with vitamin C, its efficiency is greatly enhanced.

You can purchase MSM in capsule form or as a powder. The powder is very bitter, but can be mixed with pure orange juice to disguise the taste. You can find it in most health food stores or online, quite often sold in combination with glucosamine and chondroitin, which are also beneficial for knee pain and osteoarthritis. MSM is volatile, and its benefits are destroyed by heating. Start with 2 teaspoons MSM and 1000mg vitamin C, build up to 1 tablespoon MSM per day. You can also find MSM creams which can be applied topically.

Essential fatty acids (EFA's) are required by the body for healthy biological functions including heart health, brain function, a healthy immune system and supple joints. We need them in our diet, as the body cannot synthesise them, hence the term 'essential'. The cells in our body are made up of fat and water, so taking these oils literally lubricates our cells and joints, making everything work more smoothly. There is evidence that Omega 3 fatty acids can reduce pain and improve symptoms of rheumatoid arthritis.

They include alpha-linolenic acid (ALA), an omega 3, and linoleic acid, an omega 6, amongst others. Omega 6 is more readily available in an average diet, but omega 3 is harder to obtain. Flax oil is great source of omega 3, it is 6 times richer in ALA than most fish oils . You can find it in capsule form in health food shops, or even better, by the bottle. Take 1-2 tablespoons per day. Use it on salads or take it straight, but do not heat it as this destroys the health benefits. Store it in the fridge as it can go rancid if left in the heat or sunlight. Chia seeds and hemp seeds contain omega 3 and 6 and can be added to cereals and salads or taken as oils. Omega 3 fish oils and krill oil can also be taken in capsule form.

Silica is also beneficial for healthy skin, hair, nails, teeth, bones and ligaments. It ensures collagen elasticity of all connecting tissues in the body, including tendons and cartilage. It can therefore reduce aches and pains and maintain flexibility. It is also an essential component for building strong bones, along with magnesium and potassium. Silica can be found in the herbs horsetail, nettles, oatstraw and hempleaf, which can be taken as a tea. You can also purchase silica gel from health food stores which can be mixed with water to drink, or applied topically to the knees or shins, it is more effective when mixed with Aloe Vera gel.

Summary

These suggestions can be beneficial for prevention and cure of mild to moderate knee pain or stiffness. It may take a few weeks before supplements take effect for existing problems, if however, the problem persists or worsens, you may need to visit a health professional, chiropractor or physiotherapist.