

## Knee Care in Osteoarthritis

Mrs. Sharma your next door neighbour has often said, “I always use the lift to go to my house on the first floor. Climbing the stairs is just impossible for me.” Mrs. Sharma like many others is a typical Indian housewife aged around 55 years, obese and having moderate day to day activities. Like many, many other Indian females she is oblivious to the fact that she has an early stage of osteoarthritis of her knees.

Osteoarthritis is a very serious disorder and in the late stages can even cripple a patient forcing him/ her to even stop the profession he/ she is in. Many decide to undergo a knee replacement, which on average would cost a bombshell in lakhs of rupees. Many who can't afford decide to bear the pain and live with it for the rest of their lives.

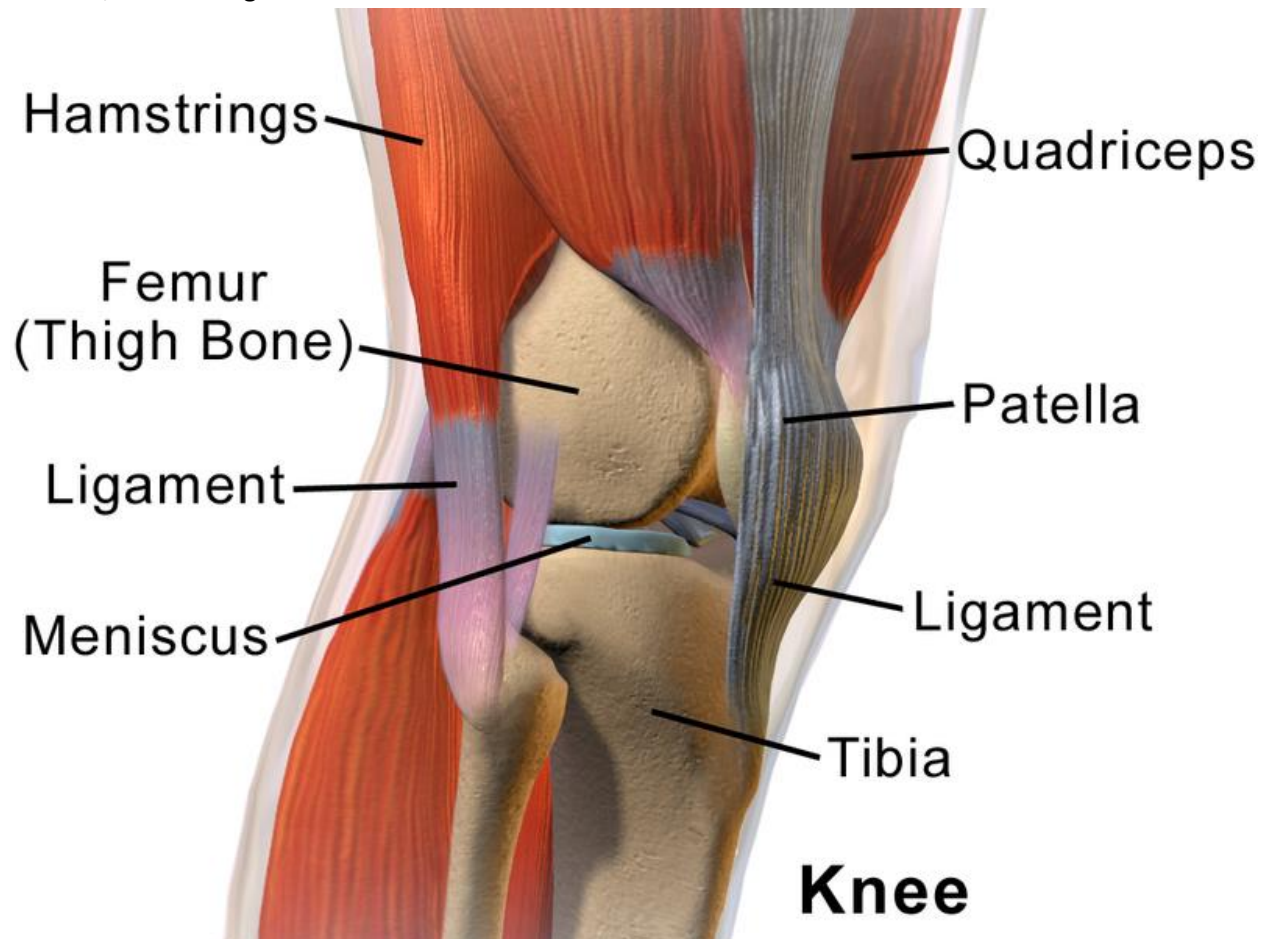


This brings us to the question, “What if this can be prevented?” “Well, if not prevented, Can the late stage of this disease be prolonged?” “At least can the severity be reduced?” To be honest, this so called disease of Osteoarthritis is nothing new and has been plaguing mankind (as well as womankind) since centuries. Centuries ago the Chinese tried using herbal medicines and acupuncture with some success. At that time osteoarthritis was so rampant across China that the Chinese word for hello is NI HAO (Knee how?).

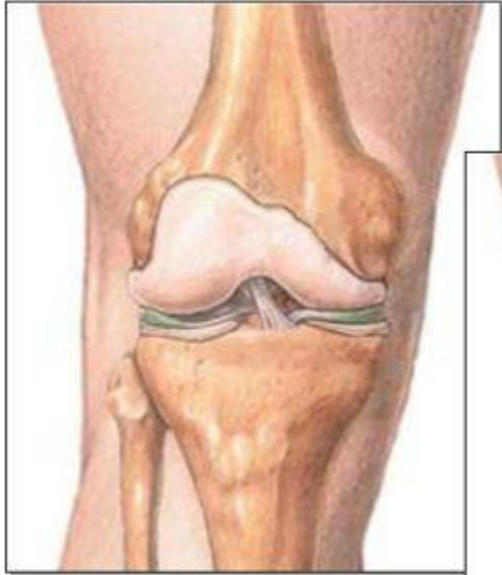
Osteoarthritis of the knees is basically a wear and tear phenomenon. It affects everyone. The only difference is some get affected earlier and some more severely. The main reason some are affected

more severely is primarily because many of us have absolutely no idea of the entire panacea of knee care. Hence it is vital for everybody to learn about knee care as regards to osteoarthritis.

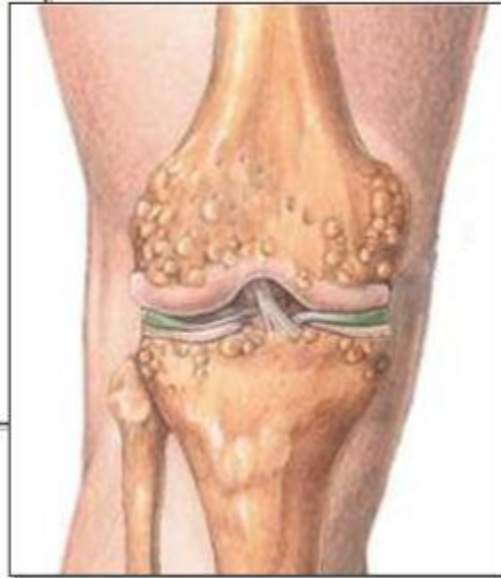
The knee joint's main function is to bend and straighten for moving the body. The knee is more than just a simple hinge. It also twists and rotates. In order to perform all of these actions and to support the entire body while doing so, the knee relies on a number of structures, including bones, ligaments, tendons, and cartilage.



Due to constant wear and tear the menisci undergo degeneration and thus cartilage comes in contact with cartilage and causes an eburnation of the cartilage. This further deepens and causes irregularity of the joint surface, pain, instability and functional loss.



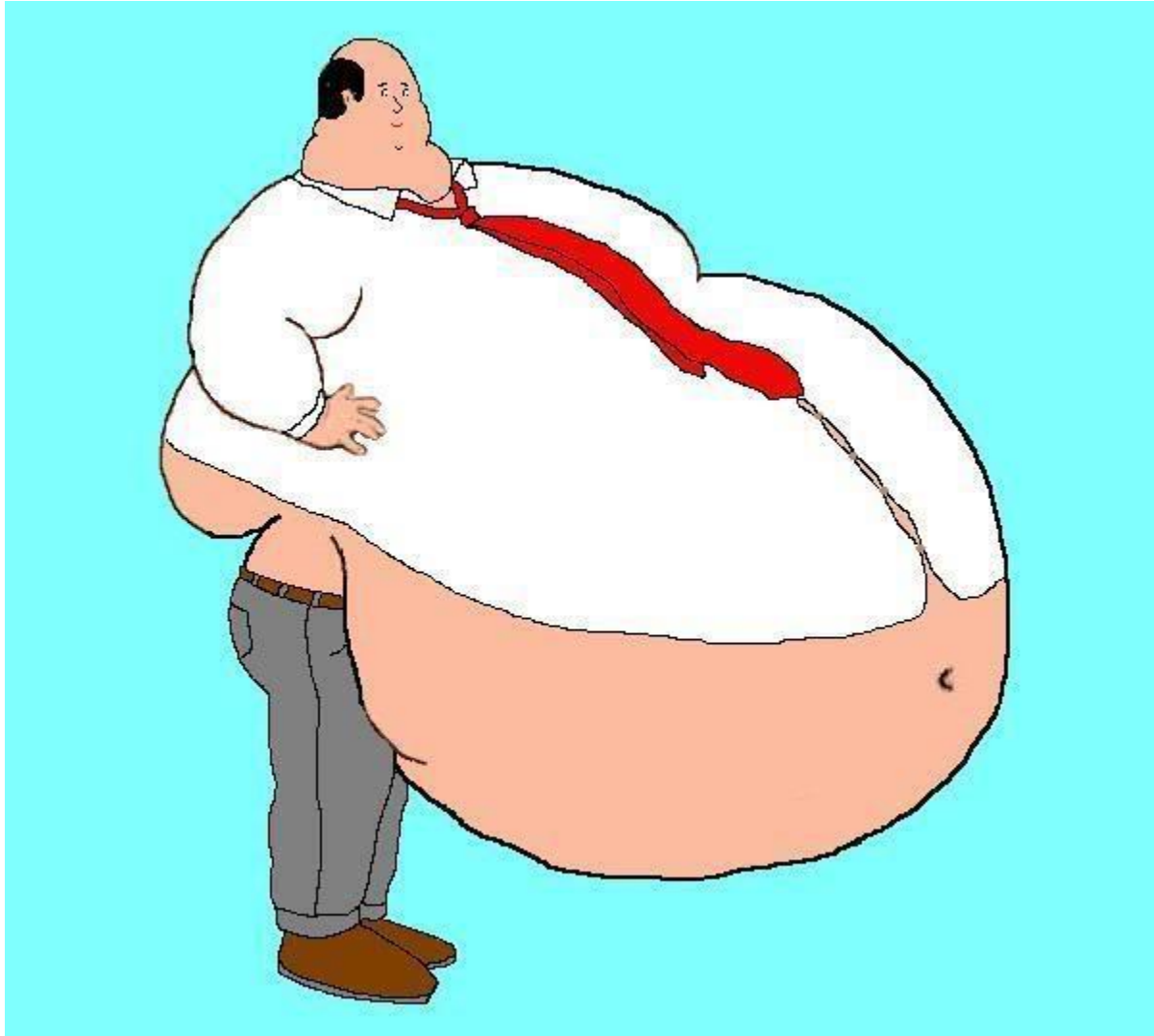
Healthy Knee



Arthritic Knee

## Some Simple remedies

### Reduce your weight:



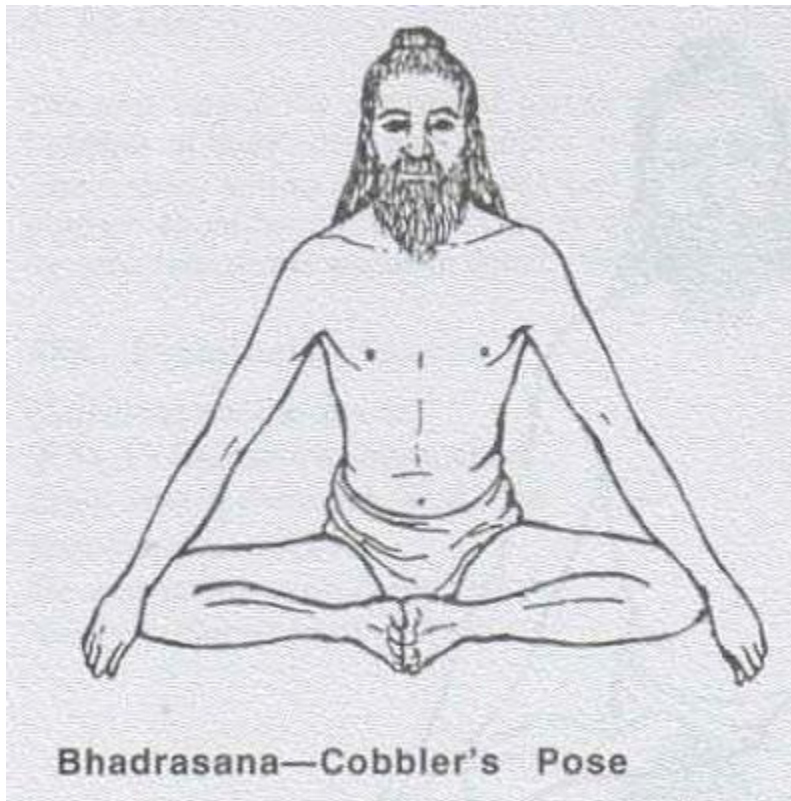
Obesity has been definitely linked to osteoarthritis. Being only 5 kg overweight increases the force on the knee by 12 to 25 kg with each step. And with an average of 5000 steps per day. Imagine a crunching monstrous force of 25 kg banging on your knees 5000 times a day. Phew!!!

### Daily exercise:

A brisk walk of 5 minutes – Sorry to say is absolutely useless. It just gives people a false sense of security that they have walked and they should expect a weight loss. At least 25 minutes of brisk (mind you- not slow strolling) is needed to keep the body active. This act of walking increases the blood flow to the

muscles and keeps them active and kicking. Treadmill is a strict no-no. Modern society has made going to the gym a fad and I feel that a gym is not at all necessary. A treadmill will actually increase the chances to increase osteoarthritis of the knees and if you already have it, it'll worsen it. An even worse machine is the elliptical. This not only crushes the knee but also grinds it similarly to the grinding a jadi booti wala does while making his medicines. My suggestion to obese people is try swimming. Since gravity is as good as eliminated in swimming it certainly gives a balanced development of all the muscles.

### **Sitting cross legged:**



Unfortunately Indian society has sitting cross-legged in –built, especially the rural folk. Yoga is also quite notorious for knee pain as it involves a lot of postures involving bending the knee. Many of my patients come with a sudden pain in the knee after a yoga session. Their mistake – they follow the mob mentality and suddenly start intense yoga just because their friends are doing it, without prior acclimatization, without prior know-how of how intense they need to do it. I'm not saying that yoga is bad; but one mustn't go overboard. One must only do the exercises permitted for that particular age.

### **Squatting:**





If feasible avoid squatting. Try using a western style commode.

If not at least a portable commode for those suffering from the disease.

### **Stair climbing:**

This too has a crushing effect on the leg. Going downstairs grinds the cartilage more than upstairs.

It is impossible to avoid but certainly can be reduced by lifts

## Effect of heat



Well let's assume now that you are suffering from early osteoarthritis, what is the first thing your family doctor will tell you. Apply local heat. But there are many myths about heat therapy. Most patients apply a heating pad and forget about it for ten to twenty minutes. The problem of such a pad is there is a high likelihood of skin burns. One must be vigil during a heating pad, so I always tell my patients a simpler solution. Heat water, dip a towel in it and apply the towel directly. That has a better heating effect.

An even better way to apply heat is to apply an Infra Red lamp to the knees. These red rays have a far better penetration than local heat. But the drawback of skin burns is there, hence must be given under medical supervision or skilled supervision.

## Do knee bands work??



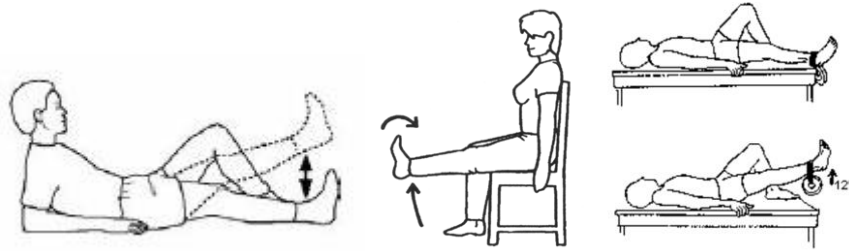
Many of my patients have asked me this. My advice is “Use knee bands only during strenuous activities and in case you can’t avoid squatting and sitting cross legged. Do remove them at night.”

### Knee strengthening exercises:

Last but not least and the most important are knee strengthening exercises.



As you all know the quadriceps are the most important muscles around the knee, any weakness of them will lead to increased amount of loads across the knee joint and strengthening them becomes vital.



There are hundreds of quadriceps exercises. But only three are important.

### **Exercise 1.**

Fold your knee and extend your knee while lying down

### **Exercise 2.**

Internally and externally rotate your leg. This can be done either in sitting or in lying down position.

### **Exercise 3.**

Attach a weight to your leg and lift your straight leg up and down lying down.

Each of these exercises must be done 10 times a day twice. Especially if you are suffering from an early stage of osteoarthritis.

To sum it up, not all knees get arthritis but precautions must be taken by each and every person. And even if you do get osteoarthritis, it's not the end of the road. Try all these simple remedies and delay the progression of the disease. And finally even if you do get a severe stage of osteoarthritis- don't lose heart; there are plenty of treatment modalities like medicinal, visco-supplementation, high tibial osteotomy and knee replacement. But well that's beyond the scope of this article.

If you have any queries however, I'd be most happy to help. Email me at [dr.yashshah@gmail.com](mailto:dr.yashshah@gmail.com)

## ABOUT ME:

Dr. Yash Shah (M.S. Ortho) is a consultant of Orthopaedics practicing at Matruseva Hospital, Pune. He is passionate about orthopaedics and trauma and sports medicine. Apart from being the official doctor of the cricket world cup 2011 and the IPL tournaments in 2011 and 2012 he has been the doctor in charge for many school level tournaments. He has conducted many camps for knee pain and back pain and conducted knee awareness programmes for the community. He has taken a keen interest in treating shoulder problems and treated innumerable patients with rotator cuff tears of the shoulder.

