

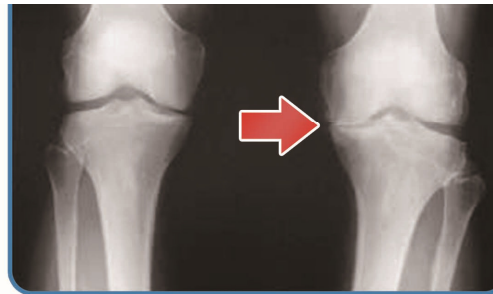
Degenerative osteoarthritis of knee joint

Prosthetic and Orthotic Service



Introduction

Degenerative osteoarthritis (OA) of knee is a common conditions, women are more likely to develop. OA knee occurs when the cartilage that cushions the joints gradually deteriorates. Knee joints and tissues around the joints can become inflamed and bony spurs can develop. Deformity can occur in affected knee. Most OA knee are affecting the medial knee joint, patient may stance look bowlegged.



Symptom

- Pain
- Stiffness
- Swelling
- Deformity
- Loss of flexibility
- Crepitation

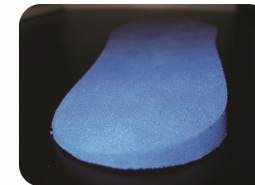
Orthotic management

Orthoses for OA knee are designed to correct and support the deformed knee joints. An orthosis can relieve pressure and friction of the affected joint to relieve pain, decrease swelling and prevent further deformation.



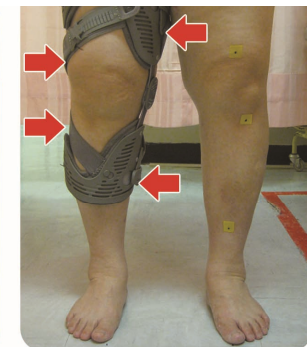
Lateral wedged insole

Lateral side of the insole is thicker than the medial side, the difference in thickness create a reaction force over knee joints and decrease the force that bend the knee in wrong way.



OA knee orthosis

The orthosis use four points pressure system to correct bowed leg and relieve excessive pressure over the medial knee joint.



Stretching and strengthening exercise

Muscle atrophy and joint stiffness can make OA knee getting worse. Stretching and strengthening exercise can improve stability, relieve pain and prevent deterioration. Suitable exercise also benefits the knee joints by maintaining optimum body weight.

The following exercise should be repeated for 2-3 times per day. 2 to 3 pounds of weight can be used to increase the difficulty of exercise.

1. Straight Leg Raise

- Lie on the floor
- Keep knee straight and raise the leg to around 30 degrees
- Hold 5 seconds and repeat 10 times
- Keep your back relaxed



2. Side Leg Raise

- Side lie on the floor
- Lift the leg up to the side around 30 degrees
- Hold for 5 seconds and repeat 10 times
- Keep your knee straight



3. Pillow squeeze

- Lie on the your back
- Place a pillow between the knees
- Squeeze your knees together for 5 seconds and repeat 10 times.



4. Hamstring stretch

- Side on the side of bed
- Keep the knee and back straight
- Flex your trunk to the knee until tension is felt
- Hold for 10 seconds and repeat 10 times



OA knee and daily living

- Prevent squat
- Prevent stairs climbing, walking on sloped and bumpy road. Hold hand rail and walking side way if necessary
- Prevent stand or walk for prolonged time
- Healthy diet to control body weight
- Adopt low impact activities, like cycling, swimming and walking

OA knee and foot wear

- The shoes should provide cushioning, best material for outsole is rubber, a low heel (2 inch or less) shoes is better
- Broad based heel is better
- Prevent outsole that made from material deformed easily
- Check outsole regularly to prevent wear and tear

Q&A about OA knee

Is knee brace useful ?

Basic knee brace can be used to control swelling, and provide limited support, but is not corrective and unable to offload the joint surface. Exercise should also be performed to maintain muscle strength and stability.

Is orthosis able to correct deformed joint?

Orthosis is only able to correct deformity when properly donned, long term use is necessary for prevent further deterioration.

Is it better to walk less?

No. Proper exercise is very important for the rehabilitation of OA knee. Exercise should perform to maintain muscle strength and stability. Exercise also help to maintain body weight and facilitate self repair.

Prosthetic and Orthotic Services

Prosthetist & Orthotist is one of the allied health professions in the rehabilitation team, they will prescribe the appropriate prosthetics, orthotics and rehabilitation devices based on patients individual need. Prosthetist & Orthotists are work together with physicians, surgeons, nurses, therapists, social workers and other health care providers as a multi-disciplinary team to provide comprehensive care to patients.

Mission:

- Facilitate rehabilitation of patients
- Improve physical ability of patients
- Increase confidence and independency

Role of Prosthetist – Orthotist:

- Evaluate the ability and need of patients
- Prescribe the appropriate prosthetics, orthotics and rehabilitation devices based on patients individual need
- Provide regular follow up to monitor progression of patients



You are welcome to contact us for enquiry about OA knee Services.

Hong Kong Society of Certified Prosthetist-Orthotists www.hkscpo.org

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