Baker's cyst

Summary
- The knee contains sacs of fluid, called bursa, that help to cushion the joint and reduce friction between the structures around it.
- A Baker's cyst is a swelling on the back of the knee, caused by a build-up of excess fluid inside the bursa.
- Treatment may include rest, physiotherapy, draining the fluid, cortisone injections and treating the underlying cause.

Your knee is a large and complex joint where three bones meet – your thigh bone (femur), shin bone (tibia) and kneecap (patella).

Surrounding the joint is a tough capsule filled with lubricating fluid called synovial fluid. This fluid allows your knee to move freely. Small fluid-filled sacs, known as bursa, cushion the joint and help reduce the friction between tissues caused by movement.

What is a Baker's cyst?
When your knee produces too much synovial fluid, the excess fluid causes the bursa behind the knee to expand and bulge. This is a Baker’s cyst (also known as a popliteal cyst. Baker’s cysts can vary in size.

What are the symptoms of a Baker's cyst?
Often there are no symptoms and you may not even know you have a cyst.

If symptoms do occur, they can include:
- a lump or swelling behind the knee
- pain
- stiffness or tightness at the back of the knee.

What causes a Baker's cyst?
Some of the common causes of a Baker's cyst include:
- injury – trauma or injury to the knee that can cause a build-up of excess fluid
- torn cartilage –cartilage is a thin cushion on the ends of your bones
- arthritis – particularly rheumatoid arthritis and osteoarthritis
- infection –can cause fluid to build up around the knee joint
- unknown causes – Baker's cysts can sometimes develop for no apparent reason.

What are possible complications of a Baker's cyst?
The symptoms of a Baker’s cyst are mild usually, however sometimes complications can develop, such as:
- the cyst continues to grow, causing your symptoms to worsen
- the cyst extends down into your calf muscles
- the cyst bursts, leaking fluid into the calf region, typically causing increased pain and bruising around the ankle.

If you experience any swelling or warmth in your calf, seek medical advice quickly.

It can be difficult to tell the difference between the complications of Baker's cyst and more serious (but less common) problems such as a blood clot in the vein. So it’s better to be safe and get it checked out.

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How is a Baker's cyst diagnosed?

A Baker's cyst may be diagnosed using a number of different methods, including:

- physical examination of your knee
- taking your medical history to see if you have any conditions that may cause a Baker's cyst (such as rheumatoid arthritis)
- x-ray – this won’t show the cyst, but can show the presence of arthritis in the knee joint, which may be causing the problem
- shining a light through the cyst (transillumination) – this can determine that the mass is filled with fluid
- ultrasound or magnetic imaging resonance (MRI).

How is a Baker's cyst treated?

Baker's cysts don’t always need treatment as they can get better and disappear on their own.

If treatment is required, options can include:

- treating the underlying cause – such as medication for arthritis or rest and ice for torn knee cartilage
- temporarily avoiding activities that aggravate your knee joint
- physiotherapy – which may include heat or ice treatment and exercises and stretches to maintain the mobility and strength of your knee
- using crutches – to take the weight off your knee
- cortisone injections – to reduce inflammation
- draining the fluid – by inserting a needle into the cyst
- surgery – may be required to remove the cyst if all other treatments haven’t worked.

A conservative approach of watching and waiting is recommended with children, as the condition commonly subsides on its own without active treatment.

Most people with a Baker's cyst will be able to continue going to work or school.

How can Baker's cysts be prevented?

Knee joints are susceptible to injury during sporting activities. Preventing knee injuries from occurring can reduce the risk of a Baker's cyst developing in the first place or coming back.

Things you can do to prevent knee injuries include:

- warming up and cooling down before and after exercising or playing sports
- wearing supportive footwear
- trying to turn on the balls of your feet, rather than through your knees.

If you injure your knee, stop your activity immediately, apply ice packs to treat the swelling and seek medical advice.

Where to get help

- Your **GP (doctor)**
- Sports medicine professional
- **Physiotherapist**
- **Australian Physiotherapy Association** Tel. 1300 306 622 (diverts to local branch)
- **Musculoskeletal Australia** National Help Line Tel. (03) 8531 8000 or 1800 263 265

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