OVERVIEW
You have been diagnosed with prepatellar bursitis. This is also known as "water on the knee" and sometimes housemaid’s knee or carpet layer’s knee. The prepatellar bursa is a special tissue under the skin and over the patellar tendon that provides cushioning and reduction in friction. Normally, it contains a minimal amount of fluid; however, inflammation of the prepatellar bursa results in marked increase of fluid within its space. Treatment is usually effective to reduce the pain and swelling. Infection can occur and can be very difficult to treat. It is important to protect the knee to prevent infection and recurrence.

BACKGROUND
Prepatellar bursitis can affect all age groups but is most common in middle aged and older adults, especially adults in occupations that require kneeling, such as plumbers, roofers, and mechanics.

CLINICAL PRESENTATION
Typical complaints are pain, swelling and redness at the front of the knee, difficulty with ambulation and kneeling on the affected side. Pain is usually better with rest. Generally, there is a history of repetitive motion and/or a fall or blunt trauma to the knee. Often there is an activity or occupation requiring excessive kneeling.

DIAGNOSIS
Examination of the knee will show pain and a focal swelling at the front of the knee. There may be warmth and erythema. If there is fluid in the adjacent subcutaneous tissue, there may be crepitus to palpation. Sometime the swelling causes limitations to or increased pain with flexion. It is important to assess for signs of infection including fever, swelling and warmth in adjacent tissue, and any abrasions. Xrays may show soft tissue swelling; however, radiographs are necessary only if other conditions are suggested, such as a fracture or significant arthritis. If there is concern for infection, blood tests and aspiration of bursa fluid may be indicated with testing of white cell counts, microscopic evaluations for bacteria and crystals, and bacterial culture. Aspiration is not without risks of causing worse pain, infection, and bleeding.

TREATMENT
If there are no signs of infection, conservative care is usually effective for treatment of prepatellar bursitis. Common treatment recommendations may include rest, ice until swelling subsides, aspiration when necessary, elevation of the affected leg, anti-inflammatory medications, bracing, and most importantly education. The most important component of
Treatment is avoidance of mechanical irritation to the area with the enlarged bursa, this is primarily done by activity modifications to avoid bumping and kneeling on the area. Sometimes a knee pad or elastic support can be of benefit both for mechanical protection, mild compression, and to serve as a reminder not to kneel or put pressure on the knee. Over-the-counter pain medications can be of use. These include anti-inflammatories such as Motrin™ (ibuprofen) and Aleve™ (naproxen), and pain medications, such as Tylenol™ (acetaminophen). Cryotherapy (ice, cold therapy) is an excellent way to control your pain. Do not apply ice directly to your skin for more than 5 minutes as it can cause skin irritation.

If there is evidence of infection, treating the infection is most important. Typically, IV antibiotics are started and if there is not improvement within 48 hours, surgical incision and drainage may be needed. Antibiotics are continued as long as needed to treat the infection. This is often 3-4 days of IV antibiotics in the hospital, followed by 1-2 weeks of oral antibiotics at home.

A chronically enlarged and scarred bursa can sometimes be problematic and surgical removal of the bursa (bursectomy) can be considered. Incomplete resection, recurrence, and infection are potential problems related to surgery and surgery should only be recommended if a patient fails non-operative treatment.

**Expected Outcome**

Prognosis is excellent with definitive treatment. Prevention is important. It is important to recognize the importance of avoiding prolonged or repetitive pressure to the knee, along with making appropriate occupational modifications.

**More Information**

Further information can be obtained on the internet. Your local public library can help you explore these sources if you are interested. Two good internet sites for expert and peer reviewed information are the American Academy of Orthopedic Surgeons at [www.aaos.org](http://www.aaos.org) and [www.emedicine.com](http://www.emedicine.com).

**Feedback**

If you have questions or comments, please contact the office or submit them to the web site at [www.pedortho.com](http://www.pedortho.com).