# Pigmented Villonodular Synovitis (PVNS)

PVNS is a condition that affects the lining of the joints. It is often characterized by swelling and pain, as well as a build-up of iron on the inside of the joints. It commonly occurs in the third and fourth decades of an individual's life. PVNS often only occurs in a single joint. In 80 percent of all cases, the knee tends to be the most common affected, but the condition can also affect the ankle, hip, shoulder and elbow. PVNS can occur in two different forms: diffuse and localized, each one involving a clinical spectrum associated with the same problem.

The cause of the condition isn't known yet. Genetic changes associated with the condition has been identified, but evidence isn't conclusive enough to form an accurate opinion.

This condition is rare and not very well known.

## Pigmented Villonodular Synovitis Anatomy

The knee is one of the biggest and most complex of all joints found in the body. It joins the shin bone and the thigh bone together. The smaller bone running alongside of the tibia and the kneecap are the two other bones that complete the knee joint. Tendons keep the leg muscles and knee bones connected to enable the knee joint to move. Ligaments join all of the knee bones and deliver stability to the knee.

The anterior cruciate ligament is the one that prevents the femur from sliding backward along the tibia. The medial and lateral collateral ligaments make sure the femur doesn't slide from one side to the other. It is the posterior cruciate ligament that prevents the femur from sliding forward along the tibia.

## How to Treat Pigmented Villondular Synovitis:

1. **Arthroscopy**
   Arthroscopy is a partial removal of the joint lining that is affected with the mass. This procedure is often successful because the rate of recurrence in the same site are relatively minimal.

2. **Open Surgery**
   In those who have the condition in both the back and the front parts of the knee, open surgery is often the best treatment option. The doctor will have to remove the mass and joint lining to treat the condition.

3. **Combined Open Surgery and Arthroscopy**
   When the majority of the mass is located in the back part of the knee, a combined approach is often used. The back part of the knee is treated using open surgery to remove the mass and the lining of the joint, while the front part of the knee is treated with arthroscopy to remove the lining there. The combined method works to decrease the surgery's magnitude, which allows for an easier recovery.

**Tips:**

- Postoperative physical therapy is crucial in being able to return to your normal activities.
- You will be prescribed a specific set of exercises to help improve movement and regain strength.
- Due to open surgical removal of the condition being extensive, there is an increased chance of postoperative stiffness occurring.
- Recovery following open surgery is often intensive, difficult and requires a prolonged physical therapy program. Expect recovery and a normal return to your activities to take months.
- For those having arthroscopy, expect physical therapy to take 3 months plus, depending on the surgery.