Calcium pyrophosphate deposition (CPPD) is a type of arthritis. CPPD used to be called pseudogout because it is easily mistaken for gout. In CPPD, calcium pyrophosphate crystals form in the blood and settle in joint cartilage. CPP crystals may build up with age. CPPD risk also rises with age. People over 60 are more likely to get CPPD, although it may happen at an earlier age. Crystal deposits attract white blood cells that trigger an inflammatory attack. It is unknown why CPP crystals form. Excess iron or calcium in the blood, low magnesium, and an overactive or underactive thyroid gland may be contributing factors. CPP crystals may also be found in the joints of people with osteoarthritis or gout.

CppD symptoms include severe joint pain, warmth and swelling. Knees are the joints most commonly affected, but CPPD can affect the wrists, hands, elbows, ankles or other joints. At first, CPPD attacks may be minimal. If left untreated, CPPD may lead to severe, painful attacks and chronic joint inflammation. Joint cartilage may break down, causing disability.

A rheumatologist diagnoses CPPD based on symptoms and medical tests. Joint imaging like MRI, ultrasound, CT scan or X-ray may show calcium-containing deposits in cartilage. Other conditions like gout, rheumatoid arthritis or joint infections should be ruled out. Needle biopsy of joint fluid to identify crystals under a microscope confirms CPPD. Other blood tests may also be used.

Prompt diagnosis and treatment of CPPD may ease symptoms and prevent joint damage. See a rheumatologist as soon as symptoms appear to rule out other possible causes and start treatment. Some underlying causes of calcium crystal build-up are treatable. A doctor can evaluate and treat problems like excess iron or calcium in the blood, thyroid problems or low magnesium. Rheumatologists may refer some people with CPPD to physical and occupational therapists. These health care providers guide therapy to improve flexibility, ease joint pain and adapt movements for better function.