

Causes and pathophysiology

No direct cause of sarcoidosis has been identified, although there have been reports of cell wall deficient bacteria that may be possible pathogens. These bacteria are not identified in standard laboratory analysis. It has been thought that there may be a hereditary factor because some families have multiple members with sarcoidosis. To date, no reliable genetic markers have been identified, and an alternate hypotheses is that family members share similar exposures to environmental pathogens. There have also been reports of transmission of sarcoidosis via organ transplants. Sarcoidosis frequently causes a dysregulation of vitamin D production; extrarenal (outside the kidney) production can be marked. Production of vitamin D goes on outside the kidneys[3]. Specifically, macrophages inside the granulomas convert vitamin D to its active form, resulting in elevated levels of the hormone 1,25-dihydroxyvitamin D and symptoms of hypervitaminosis D that may include fatigue, lack of strength or energy, irritability, metallic taste, temporary memory loss or cognitive problems. Physiological compensatory responses (e.g. suppression of the parathyroid hormone levels) may mean the patient does not develop frank hypercalcemia.