

Vitamin D Deficiency

Studies have found that Vitamin D deficiency may be associated with decreased bone and soft-tissue healing. By correcting the deficiency, we can improve the ability of the tendon to heal to the bone in the case of rotator cuff repair or improve the ability of fractured bones to heal.

If your Vitamin D test results show that you are insufficient (blood level less than 40), we will have you start taking Vitamin D3 50,000 IU, 1 pill weekly, for eight weeks. We also ask that you begin taking an over-the-counter Vitamin D3 supplement - 2,000 IU to be taken daily as a maintenance dose. After eight weeks, we will repeat the Vitamin D level to assess for improvement.

Vitamin D is a fat-soluble vitamin and is better absorbed when taken with food.

Vitamin D3 50,000 IU (pharmacy) if blood levels <40

This is prescription strength and will be called into your pharmacy.

Vitamin D3 2,000 IU (over the counter)

This will be picked up over the counter.

Once your Vitamin D has been normalized it is recommended that you continue to take Vitamin D3 2,000 IU daily for maintenance.

For further information on the use of Vitamin D to improve healing following rotator cuff repair, please read the following articles:

Harada G, Arshi A, Fretes N, Formanek B, Gamradt S, McAllister D, Petrigliano F (2019). Preoperative Vitamin D Deficiency is Associated With Higher Postoperative Complications in Arthroscopic Rotator Cuff Repair. *JAAOS Global Research and Reviews*, 3 (7): 1. DOI: 10.5435/JAAOSGlobal-D-19-00075.

Dougherty K, Dilisio M, Agrawal D (2016). Vitamin D and the Immunomodulation of Rotator Cuff Injury. *Journal of Inflammation Research*, 9: 123-131. DOI: 10.2147/JIR.S106206.