The Importance of Overall Health on Orthopaedic Healing

The Effects of Nutritional Health, Vitamin D Levels, and Smoking on Bone and Wound Healing

Patients with lower albumin levels exhibit a significantly higher medical severity of illness, and incur a longer hospital stay.

Nutritionally compromised patients having hip or knee replacement experience a sevenfold increase in the risk of a major wound complication.

Patients with depressed albumin levels who undergo hip and knee replacement, incur 32.7% higher hospital charges.

Importance of Vitamin D Levels on Orthopaedic Outcomes

- Depressed Vitamin D levels were found among patients with nonunions of wrist and hip fractures 68% of the time in one study.

  - Total hip patients with lower Vitamin D levels have statistically significantly lower Harris hip scores.

- In a study of 811 hip and knee replacement patients, smoking was the single most important risk factor for a postoperative complication.

- Among 906 patients with ankle fractures, smokers had a 48% increased prevalence of overall complications and a nearly five-times higher risk of a deep infection.

- Patients who smoke and had surgery for lumbar spinal stenosis had less improvement in walking ability, higher dissatisfaction rates, and a higher rate of analgesic use compared to non-smoking patients.

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