



Diffuse idiopathic skeletal hyperostosis (DISH)

Overview

Diffuse idiopathic skeletal hyperostosis (DISH) is a bony hardening (calcification) of ligaments in areas where they attach to your spine.

Also known as Forestier's disease, diffuse idiopathic skeletal hyperostosis may cause no symptoms and require no treatment. The most common symptoms are mild to moderate pain and stiffness in your upper back. DISH can also affect your neck and lower back. Some people have DISH in other areas, such as shoulders, elbows, knees and heels.

A non-inflammatory condition, DISH can be progressive. As it worsens, it can cause serious complications.

Symptoms

You might have no signs or symptoms with DISH. For those who have signs and symptoms, the upper portion of the back (thoracic spine) is most commonly affected. Signs and symptoms might include:

- **Stiffness.** Stiffness may be most noticeable in the morning.
- **Pain.** You may feel pain in your back or in other affected areas, such as your shoulder, elbow, knee or heel.
- **Loss of range of motion.** You may notice this most when stretching side to side.
- **Difficulty swallowing or a hoarse voice.** You may experience these if you have DISH in your neck.

When to see a doctor

Make an appointment with your doctor if you have persistent pain or stiffness in any joint or in your back.

Risk factors

It isn't clear what causes diffuse idiopathic skeletal hyperostosis, but doctors have some idea of what can increase your risk of the condition. Risk factors include:

- **Sex.** Men are more likely to develop DISH.
- **Older age.** DISH is most common in older adults, especially in people older than 50.
- **Diabetes and other conditions.** People with type 2 diabetes may be more likely to develop DISH than are those who don't have diabetes. Other conditions that may raise insulin levels in your body may also increase your risk, including hyperinsulinemia, prediabetes and obesity.
- **Certain medications.** Long-term use of medications called retinoids, such as isotretinoin (Amnesteem, Claravis, others), which are similar to vitamin A, can increase your risk of diffuse idiopathic skeletal hyperostosis. It isn't clear whether high intake of vitamin A increases your risk, however.

Complications

People with DISH are at risk of certain complications, such as:

- **Disability.** Loss of range of motion in the affected joint can make it difficult to use that joint. For instance, DISH in your shoulder can make it difficult to use your arm.
- **Difficulty swallowing.** Bone spurs in the neck can put pressure on your esophagus. The pressure from bone spurs can also cause a hoarse voice or sleep apnea, a sleep disorder in which you stop breathing repeatedly. Rarely, this can become serious and might require surgery to remove the bone spurs.
- **Spinal fracture.** DISH can increase your risk of breaking bones in your spine, especially if you have moderate to severe disease. Even minor injuries can cause fractures. Breaks may require surgery to repair.

[By Mayo Clinic Staff](#)

Any use of this site constitutes your agreement to the Terms and Conditions and Privacy Policy linked below.

[Terms and Conditions](#)

[Privacy Policy](#)

[Notice of Privacy Practices](#)

[Notice of Nondiscrimination](#)

Mayo Clinic is a not-for-profit organization and proceeds from Web advertising help support our mission. Mayo Clinic does not endorse any of the third party products and services advertised.

[Advertising and sponsorship policy](#)

[Advertising and sponsorship opportunities](#)

A single copy of these materials may be reprinted for noncommercial personal use only. "Mayo," "Mayo Clinic," "MayoClinic.org," "Mayo Clinic Healthy Living," and the triple-shield Mayo Clinic logo are trademarks of Mayo Foundation for Medical Education and Research.

© 1998-2018 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved.