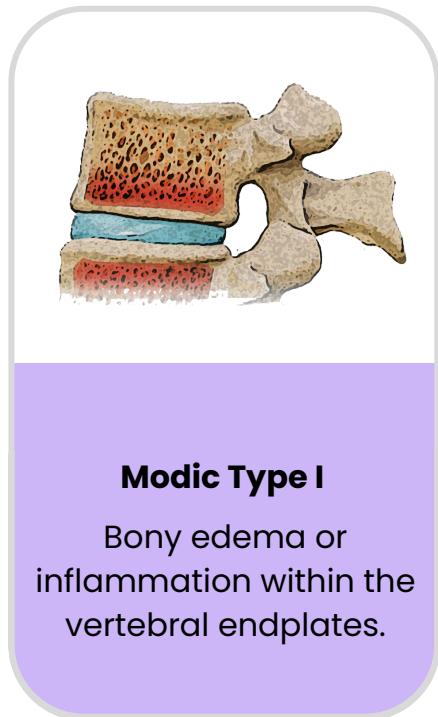
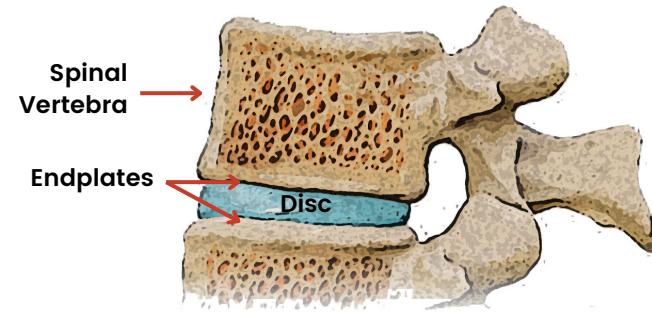


# MODIC CLASSIFICATIONS

A vertebral *endplate* refers to the thin cartilage layer covering the upper and lower surfaces of the spinal vertebra next to the discs.

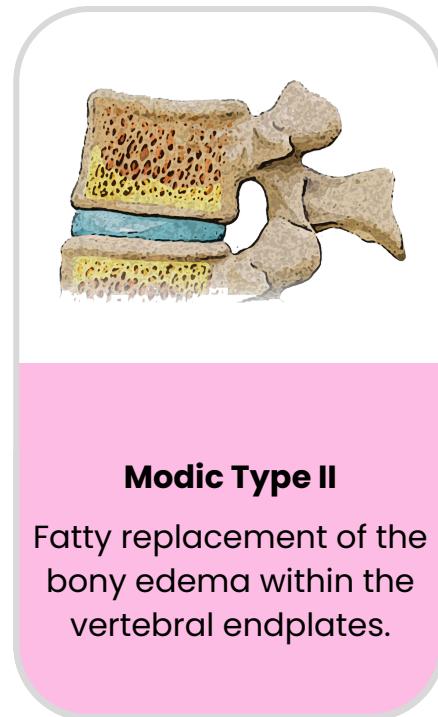
Through stress and time, endplates can undergo structural remodeling.

The Modic system classifies vertebral endplate changes based on their MRI appearance. (1,2)



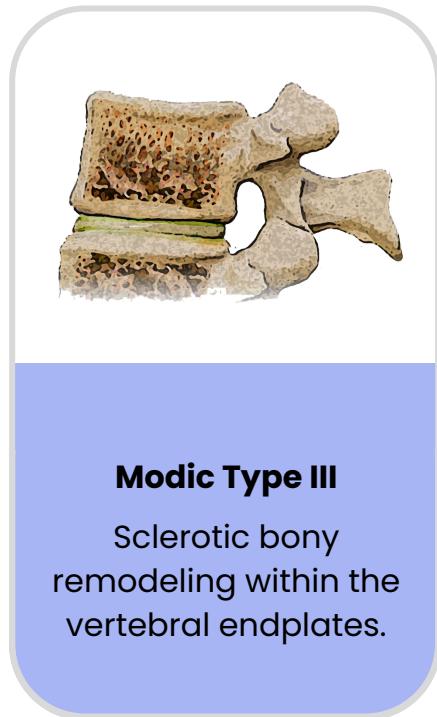
## Modic Type I

Bony edema or inflammation within the vertebral endplates.



## Modic Type II

Fatty replacement of the bony edema within the vertebral endplates.



## Modic Type III

Sclerotic bony remodeling within the vertebral endplates.

The causes of Modic changes are still not fully understood, and their significance is a subject of ongoing debate. (3) While some authors suggest a direct correlation between Modic changes and back pain, most research reviews have not established a consistent relationship - meaning having a Modic change does not necessarily mean that you will have pain. (4-7)

Modic changes are similar to many other imaging findings, including arthritis, spurs, or disc bulges; resolving symptoms requires restoring spinal function but not necessarily eliminating structural changes. (8-12)

