

## **THE TWO TYPES OF ARACHNOIDITIS:** **ADHESIVE AND NON-ADHESIVE**



Arachnoiditis was defined in 1873 medical dictionaries as “inflammation of the arachnoid membrane” (inner lining of the spinal canal covering). This definition remains today. In 1873 there was no differentiation between adhesive and non-adhesive arachnoiditis.

**Recognition of Adhesions:** The discovery that adhesions may develop and adhere (glue) cauda equina nerve roots to the arachnoid was in the early part of the last century. Since then, the focus, diagnosis, and clinical treatment has been directed at “adhesive arachnoiditis.” Use of toxic dyes for myelograms in the last century was the most common cause of adhesive arachnoiditis.

**MRI Detection:** The clinical focus in this century has primarily been on adhesive arachnoiditis in great part because it can be identified on contrast MRIs. The pathologic finding on the MRI is clumping or grouping of cauda equina nerve roots that are attached to the arachnoid membrane. To date, there has been no specific MRI finding attributed to non-adhesive arachnoiditis. Consequently, the diagnosis of non-adhesive arachnoiditis is seldom given in clinical practice.

**New MRI Findings – Non-Adhesive Arachnoiditis:** Arachnoiditis Hope has reviewed approximately 1500 MRIs of patients who have a history and symptoms compatible with one of the two types of arachnoiditis. We now recognize and diagnose non-adhesive arachnoiditis if the spinal canal cover is thickened in a specific area compared to the opposite side of the canal. The major symptom of non-adhesive arachnoiditis is an increase in pain just after a person stands or sits. Headache is almost always present. Leg and arm stretching may increase pain.

**Non-Adhesive Precedes Adhesive:** Our studies show that non-adhesive arachnoiditis precedes adhesive arachnoiditis. The arachnoid membrane initially becomes inflamed, and over time the inflammation develops “sticky” adhesions that capture and glue cauda equina nerve roots to the inflamed arachnoid membrane.

**Prevention Opportunity:** Effort should be made to diagnose and treat non-adhesive arachnoiditis to prevent AA.

**Cervical Neck Arachnoiditis:** A main reason to diagnose non-adhesive arachnoiditis is that it may affect the cervical spine. Cervical spine arachnoiditis is overlooked and undertreated. It is extremely painful.

**Summary:** A person with severe pain especially after trauma or a medical procedure should determine which type of arachnoiditis is present.