



## REMOVING BARRIERS TO REGENERATION

At Arachnoiditis Hope we continuously receive reports of reduced pain and neurologic symptoms. To permanently reduce pain and neurologic symptoms some tissue healing and regeneration of cauda equina nerve roots and arachnoid membrane must take place. Many of the newer regenerative measures including peptides, anabolic hormones, oxygen promoting medications, viral control, and electromagnetic therapy all seem to help various individuals (i.e., different strokes for different folks). Healing and regeneration optimally take place when there are no biologic barriers to healing such as inadequate diet, excess inflammation, uncontrolled pain, and viral reactivation. To optimally promote healing and regenerate damaged tissues, you should remove the barriers listed in this bulletin.

**Inadequate Sleep:** The body's healing hormones and biochemical replenish during sleep. Use a medicinal to help you sleep, if necessary.

**Inadequate Diet:** The body requires daily protein to heal and regenerate tissue. Protein foods include poultry, seafood/fish, and beef. A daily amino acid or collagen supplement is a good idea. Blood sugar surges caused by high intake of carbohydrates (sugars and starches) slow healing. Most fruits and vegetables have anti-inflammatory properties.

**Excess Inflammation:** Simply stated, tissues that are highly inflamed won't heal or regenerate. The anti-inflammatory agents that have stood a "test of time" in AA are the corticosteroids methylprednisolone or dexamethasone, and either ketorolac or diclofenac. Several herbal anti-inflammatories are effective. One or two of the following are recommended: andrographis, astragalus, curcumin, quercetin, resveratrol.

**Uncontrolled Pain (Stress):** Pain is a severe stress that alters multiple hormones, neurotransmitters, and biochemicals that promote healing and regeneration of tissues. Pain control doesn't have to be perfect to permit tissue healing, but if your pain is so severe you can't think, leave the couch, and do functions of daily living, it is probably too out of control to allow regeneration to occur.

**Viral Reactivation:** Reactivation of Epstein-Barr Virus from its normal parasitic existence allows live virus to attack and infiltrate tissues. In our studies over half of persons with AA have a reactivated virus. The virus appears to favor damaged or injured tissue to infiltrate. Healing is greatly retarded. We recommend that all parties with AA obtain one of the tests for viral reactivation: (1) early nuclear antigen-Early EBNA, (2) polymer chain reaction (PCR-DNA). If viral reactivation is present, specific suppressive measures are necessary (protocol available on request).

**Summary:** Persons with AA are today commonly reporting permanent pain reduction and improved neurologic functions due to healing and regeneration of cauda equina and arachnoid tissues. Several regenerative measures listed above appear effective. Healing and regeneration of damaged tissues can be optimally promoted if barriers to healing and regeneration are removed.