Migraines and Cluster Headaches are the same. They occur when oxygen delivery is too low. Usually from stress.

The Migraine Hypotension Connection

Ever wonder why migraines, or cluster headaches, happen?

Well, you're not alone, 30+ million others get bad headaches too. The search for why your head hurts, and what to do about it, yields nearly zilch, until you read this article…

Few, if any sources, offer explanation of why migraines happen. Our goal here was to connect the dots – your headache, your stress and your *probable* low blood pressure:

1. Why you get migraines;
2. Why stress triggers migraines;
3. Suggest actionable protocols to address cause.

Believe it or not there are two mature publications that when taken together explain why most people get migraines – and suggest a nutrient and oxygen therapy model to address the cause. If you like to study you will need to dig up:

- Research In Physiopathology as a Basis of Guided Chemotherapy – Emmanuel Revici
- Oxygen Multistep Therapy – Manfred von Ardenne

The analysis that follows interprets these two seminal references into a functional explanation of migraines and low blood pressure that leads to a method for fixing the causes.

The Migraine Connection / Hypotension

Hypotension or low blood pressure is caused by loss of vascular tone and usually results from one or more of the following conditions:

- Insufficient oxygen to arterial smooth muscle to maintain tone
- Dysfunction of brain area that controls Blood Pressure
- Inhibition of vagus nerve
- Toxic Shock where one or more toxins disrupt tissue oxygen delivery
- Traumatic Shock where one or more events disable metabolism
- Acute dehydration which results in blood volume loss or excess salts which prevent oxygen solubility and oxygen delivery
- Severe blood loss

The body uses two mechanical processes to control blood pressure:

- Heart Rate and Force to force blood to move blood;
- Vascular tone to direct blood where needed through vascular system.

Hypotension from a weak heart is rare because usually diagnosed as heart disease. Low blood pressure usually results from failure in vascular tone maintenance.

You don't have to have low blood pressure for low brain oxygen – but it's typical. If you have normal or high blood pressure, then it means something else is causing your brain NOT to get enough oxygen to work right.

Even if you don't have low blood pressure your brain can not get enough oxygen from:

- Not enough oxygen in your blood
- Blood cannot transfer oxygen to brain
    - Deficiency in transfer nutrients
    - Deficiency in CO2 from fatigue
- Blood cannot flow through brain
    - Vascular inflammation in the brain inhibits blood flow
    - Blood is too thick (sludged) to flow through the brain

By the way – all of these factors also apply to people with hypotension. Any combination of either set of factors can cause your brain NOT to get enough oxygen.

Stress and Flow

Arterial smooth muscle tension limits blood flow, and preserves pressure. Squeezing arteries directs blood where needed by restricting flow to areas where it is not needed.

Weak arterial tone inhibits the body's ability to regulate blood flow. Likewise, systemic hypoxia, that triggers an entire-body vasodilator reflex, can also result in hypotension.

Breakdown in the vascular tone is the dominant underlying cause of low blood pressure. Loss of vascular tone causes limits blood and oxygen delivery to high demand areas in the body.

Flow-control failure causes poorly supplied tissues under-perform, exhibit functional weakness produce excess lactic acid. This transient under-performance results in a wide range of syndromes and symptoms ranging from benign to severe and degeneration.

Hypotension is both a cause and an effect of vascular tone loss. When tissues that control oxygen delivery do not get enough oxygen. This is positive feedback.

It evidences a durable and recurring pattern which limits stress adaptive responses.

The Migraine Connection

Migraine-like symptoms nearly always present with reduced systolic blood pressure (below 105), or with a sudden relative drop in blood pressure prior to the migraine onset. Although this connection is weakly documented in medical literature, it is easily verified.

Several theories describe migraine cause, Depolarization, Vascular, Neural and Unifying. Curiously, none of these theories suggests that tissue oxygen deprivation as a trigger or cause for migraine.

Hypoxia conditions, relating to capillary performance, and functional oxygen delivery, are fully hidden in medical evaluation methods, except in advanced cases where the arteries are sufficiently degenerate and show occlusion or aneurysm.

A French study in 2007, using the Positron Emission Tomography (PET) technique identified the hypothalamus as being critically involved in the early migraine stages.

A disabled hypothalamus, controls blood flow, both victim and cause of poor oxygen during a migraine.

The victim/cause pattern makes complicates recovery and explains why migraines tend to last a long time 4-72 hours.The depression wave model results from the spreading hypoxic distress of brain tissue.

We assert that the hypoxic (stress) triggers a portion of the brain to enter anaerobic glycolysis which causes local acidosis, which further inhibits the aerobic metabolism of nearby brain area, causing expansion of the distressed region.

In simple terms, a migraine is a brown-out that affects part of the brain – that grows.

As the “wave effect” expands, more brain tissue enters distress. This model describes migraine onset as triggered by a blood-plasma desaturation event, from a toxin or other stress.

This failure causes a drop in usable oxygen delivery to brain, directly or by triggering capillary swelling in the brain, when capillaries bloat and narrow due to cellular sodium accumulation.

The drop below the migraine-trigger-threshhold causes a cascade effect of distress processes including potentially neurotransmitters, hormones, inflammation and so on, involving the hypothalamus gland, which in turn controls blood pressure.

This network of factors reinforces the distress pattern, which enables migraines to persist for days.

Both Manfred von Ardenne and Dr. Emanuel Revici developed methods that reduce the severity and incidence of migraines, though different, but complementary mechanisms:

- Manfred von Ardenne documented Oxygen Multistep Therapy, p- 251, 259, 282, which reduced migraine incidence and severity by restoring capillary blood flow;
- Dr. Revici and associates found that n-Butyl alcohol was sufficient to control migraines a strong majority of cases. The author asserts that this effect resulted from an unknown role as a Vasoregulator which aids restoration of normal blood flow to the brain after a migraine trigger.

Physiology Models

Hypotension is weakly defined in most medical literature. It generally reflects the inability of the body to regulate blood flow due to an absence of vascular tone. Cardiac insufficiency is outside this description.