Aurum Medicine & Wellness

MANAGE PAIN, NATURALLY

A Naturopathic Approach to Managing Pain

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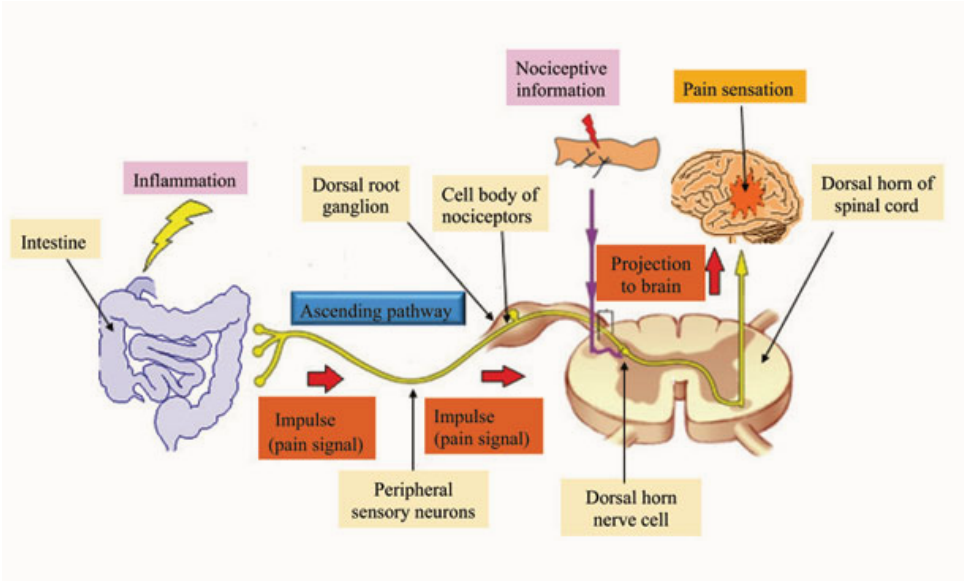
PAIN

Pain is the body's response to injury or an unpleasant stimulus and a sign that the body is in need of protection and healing. The physiological changes that occur in the body are protective and promote behaviours that include rest, sleep, healthy eating and light exercise. Pain signals are relayed from nerves to the spinal cord and then to the brain. Chemical mediators are released to help modulate pain through multiple biochemical pathways.



Reference: Khan. A, Khan. S, Kim. Y.S, Insight into Pain Modulation: Nociceptors Sensitization and Therapeutic Targets, Current Drug Targets, 2019, Volume 20 , Issue 7 , pp. 775 - 788.

TRANSMISSION OF PAIN

1. Transduction: The pain stimulus is transformed into a nerve impulse
2. Transmission: The nerve impulse travels to the brain
3. Perception: Involves recognizing, defining and responding to pain.
4. Modulation: Pain is reduced or increased by the body through ascending and descending pathways from the spinal cord to the brain and the brain to the spinal cord.

What hormones are involved in pain control?

- **Cortisol**
- **DHEA**
- **Progesterone**
- **Estrogen**
- **Testosterone**
- **Growth hormone**
- **Thyroid hormones**
- **Cytokines (regulatory peptides)**

BODY REPONSES TO PAIN

- Increased blood glucose and cortisol production
- Increased risk to infection
- Increased respiration
- Reduced gastric emptying
- Nausea or Vomiting
- Increased urination
- Increased muscle tension
- Shaking
- Anxiety/depression
- Poor concentration
- Increased blood circulation
- Increased heart rate and BP.

TIPS FOR PAIN MANAGEMENT

ADVANCED LABORATORY TESTS TO CONSIDER

- **Dried Urine Test for Comprehensive Hormones (DUTCH)**
  - Since hormones can be out of balance in pain conditions, the DUTCH test provides a comprehensive and complete look at sex and adrenal hormones (i.e. cortisol) and their metabolites, including an add-on assessment of nutritions organic acids and neurotransmitter metabolites.

- **Gastrointestinal mapping (GI MAP)**
  - Many people with chronic pain conditions such as fibromyalgia, ME and chronic fatigue syndrome present with digestive concerns.
  - A comprehensive stool analysis can detect chronic intestinal organisms in overgrowth and infections. The test uncovers imbalances in the gut microbiome as a result of intestinal organisms, as well as markers of inflammation, nutrient absorption and immune function.

- **Organic Acids (OATs)**
  - Abnormal levels of organic acids are seen in many people with chronic illnesses and neurological disorders that lead to pain, fatigue, reduced immune function and cognitive impairment
  - Organic acids provide a comprehensive metabolic analysis of nutritional status by looking into intestinal yeast and bacteria, vitamin and mineral deficiencies, oxidative stress markers, neurotransmitter levels, and oxalate metabolites.

SO.....WHAT CAN I DO?

- Optimize Diet
- Increase Hydration
- Improve Sleep
- Exercise
- Reduce Stress
- Remove Environmental Toxins
- Supplement
- Bodywork

DIET

- **Foods to eat:**
  - Lean white protein – turkey, rabbit, chicken, fish, etc.
  - Fruits – apples, bananas, berries (cranberry, blueberry, blackberry, raspberry), etc.
  - Vegetables – celery, leeks, cauliflower, broccoli, asparagus, cucumber, cabbage, Brussels sprouts, artichokes, okra, etc.
  - Nuts and Seeds – almonds, brazil nuts, hazelnuts, walnuts, sesame seeds, pumpkin seeds, sunflower seeds, etc.
  - Healthy fats - avocado, coconut, olive oil, etc.
  - Gluten-free grains - brown rice, millet, buckwheat, quinoa, tapioca, oats, sorghum, teff, amaranth, etc.
  - Dairy-free - coconut, rice, almond, cashew, oat, etc.
  - Spices - turmeric, ginger, cayenne, cinnamon, clove, etc.
  - Water - 2-3L minimum

- **Foods to reduce and have less of:**
  - Red meat - Beef, pork, veal, etc.
  - Dairy - milk, butter, cheese, yoghurt, etc.
  - Gluten - wheat, rye, barley, etc.
  - Sugar - cookies, candy, cake etc.
  - Alcohol - liquor, wine, beer, etc.
  - Caffeine - coffee, black tea, etc.
  - Processed food - chips, cold cuts, cereal, hot dogs, etc.

EXERCISE

- Low impact exercise daily or 3-4x a week for 30 to 40minutes
- May include yoga, aquatics, pilates, tai chi, Qigong, walking etc.

SLEEP

- Make it a priority
- Create a consistent sleep routine
- Aim for 7-9hours/night
- Avoid caffeine and alcohol
- Avoid screens (ipad, TV, phone, computer)
- Remove the clutter and noise
- Darken the room
- Ideal bedtime is 10pm
- Get comfortable (moderate to firm support, loose clothing)
- Lower the temperature
- Try a hot bath

DETOXIFICATION

- Avoid toxic household and personal care products containing dyes, frangrances, parabens, petroleum, ammonia etc.
- Consider using essential oils
- Try Sauna,Contrast showers, Castor oil, Dry Brushing

RELAXATION

Pace yourself
Journal
Meditate
Breathing exercises
Have some tea
Take a warm bath

Alternate Nostril Breathing Technique

1. Sit upright and close your eyes.
2. Close your right nostril with your right thumb, inhale slowly for 4 counts through your left nostril.
3. Close your left nostril with your ring finger. Hold for 4 counts.
4. Release your thumb and exhale slowly through your right nostril for 8 counts.
5. Switch and Repeat.

SUPPLEMENTATION

Coenzyme Q10

Fat soluble anti-oxidant
important for production of ATP. Produced by the body and has affinity for the heart, kidneys, liver and pancreas. Found in meat and seafood. Improves functional capacity to counter oxidative stress impacting physical fatigue. Caution: GI upset.

Magnesium Malate

Common deficiency. Reduces
symptoms of muscle cramping and pain, migraine headaches, improves sleep, reduces anxiety, relieves constipation and reduces fatigue. Found in nuts and seeds, whole grains and vegetables. This form is to improve oxidation and reduce pain and increase cellular stamina and endurance. Caution: can loosen the stool.

5-HTP

5 Hydroxy –Tryptophan,
precursor to converting serotonin in the body. Leading to reduction in pain, improved mood, appetite, sleep, and cognitive function. Caution: Interaction with SSRIs, SAMe, MAOIs

Probiotics

Good bacteria to help
recolonize the GI tract. Helps to rebalance bacterial imbalance in the intestinal tract. 75 % of immune system
resides in digestive tract.

Essential Fatty Acids

Healthy fat. Shown to reduce
inflammation, improve immune function and support mood.

Amino Acids

Building blocks of proteins. Can
be tested in blood. Branched Chain Amino Acids (leucine, isoleucine, valine)– essential amino acids consumed from dietary protein. Used to prevent fatigue and improve cognitive function.

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