

How can it be useful to you? Your clients?

- Actionable small measures that can improve health
- Professionals committed to trying and finding solutions
- Allows healthy habit building and progression
- Remember the BIG picture!

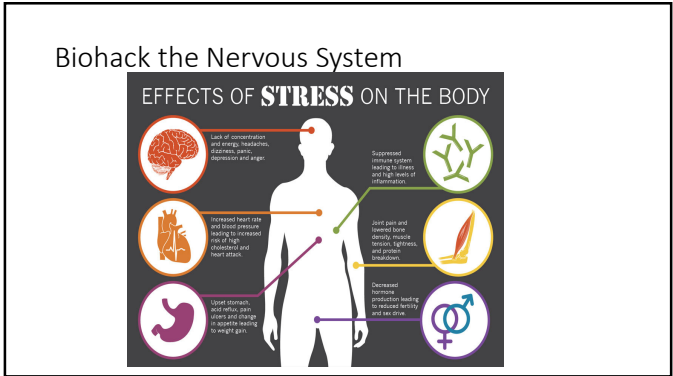


Types

- External: Using technology or equipment to conduct experiments to 'hack' the body
- Internal: Using medicine, supplements, or exercise to 'hack' the body for optimal performance
- Remember validity question
- Focus of session: Internal and easy to apply techniques

What is Biohacking?

- The activity of exploiting genetic material experimentally
- Process of making changes to your lifestyle in order to hack your body's biology and feel your best
- A systems thinking approach to our own biology
- Experienced based learning
- The desire to be the absolute best version of ourselves
- Quest for personal optimization



## Breathing

- Focus on breathing has been gaining in popularity
- Increases oxygen supply
- Decrease cortisol
- Increase pleasure neuro-chemicals
- Reduced tension in muscles
- Lower blood pressure
- Increase lung and heart capacity
- Improved management of depression/anxiety

## Go Barefoot (Earthing)

- Focus to clear your mind
- Reflexology

## Breathing

## Cold Showers

## Forest Bathing

- Being in the presence of trees
- National public program in Japan since 1982

## Care for the Vagus Nerve

- Who might suffer from low vagal tone?
- SINGING/CHANTING: works muscles back of throat = vagus
- GARGLING: water to contract muscles back of throat
- DEEP BREATHING: stimulates vagus and diaphragm
- LAUGHTER: increase HRV, lower cortisol
- FOOT MASSAGES: shown to increase vagus activity
- ACUPUNCTURE: locations in ear
- TENSING STOMACH MUSCLES: bear down
- CHEW FOOD WELL: correct sequence of digestion
- DEFICIENCIES?: B12, neurotransmitters (acetylcholine)

## Heart Rate Variability (HRV)

- Variation in the time interval between heartbeats
- A healthy heart beat contains irregularities
- The autonomic nervous system has parasympathetic and a sympathetic branch.
- HRV can help us understand which dominates
- Higher is generally better for HRV
- Individual and should only be compared to yourself
- Stress, dehydration, alcohol, poor sleep, and illness lower HRV
- Higher HRV indicates recovery from exercise and ready to go!

## Decrease Chemical Exposure

- Cut out Aluminim (deodorant, OTC meds, tin foil, pans)
- Pesticides
- Petrochemicals
- Heavy metals
- Phthalates/BPA
- Colours/Flavours

## HRV-How to use it

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## Essential Oils

- Volatile oils extracted from plants

## Decrease Chemical Exposure

- Food quality
- Reduce/eliminate plastic: endocrine disruptors BPA
- Body Products: <http://www.ewg.org/skindeep/>
- Cleaning products: <http://www.ewg.org/guides/cleaners>
- Home/car scents

## Put Down the Advil!

## Sleep

- Importance for health and performance
- Improves learning and skill acquisition
- Healthy balance of hormones (insulin, ghrelin and leptin)
- Critical for immunity
- Wrist trackers/phones monitor movement
- More advanced options available.
- Sleep Hygiene

## Immune System

- Digestive health (80% immune system in gut)

Sleep cont...

## Lymphatic System

## Biohack the Immune System

## Oil Pulling

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Care for Digestive System

Nutrition Strategy-  
LOW FODMAP

Nutrition

Nutrition Strategy

Nutrition Strategy

Intermittent Fasting

### Intuitive Eating

- The term intuitive eating was coined by Evelyn Tribole, RD, and Elyse Resch, RDN, in the 1990s

### Productivity

### Nutrigenomics

- Study of how genetics interact with foods we eat
- Supports: 'Not one size fits all' approach

### Movement

### Superfoods?

### Resisted Breathing

Hacking Metabolism –  
anecdotal