MY STORY

- IT band injury long-distance cycling 2009, and subsequent partial ACL tear
- Intention to avoid surgery at any cost
  - Elected PRP & BMAC
  - 45-50 yrs. old - focused on whole dense nutrient rich foods and working on improving digestion
- Completed Pittsburgh to DC bike trip again, painlessly, last summer (4th time)
- Completed Mud on the Mountain 2013
- Hiked all over Utah summer of 2014
- Mud on the Mountain 2015
- Hiked with grandchild in the Adirondacks 2017

HOWDY
DISCUSSION

- I'm back - again
- Quick review – nutrition matters
- Specific foods enhance the generation of new stem cells
- What a day might look like
- Two ways to implement
- Case studies for nutrition
- A take home for you

OUR 13 TIPS

1. Stop sugar
2. Anti-inflammatory diet
3. Eliminate food sensitivities
4. Sleep
5. Digestion
6. Hydration/minerals
7. Bone broth
8. Fermented foods
9. Get moving
10. Mindfulness
11. Infrared heat
12. Supplements
13. Laughter
What’s stopping YOU?

ARE YOU STARTING TO BELIEVE?
- More peer reviewed articles
- FDA changing the food pyramid
- Wellness centers prospering
- $33.9 Billion spent in 2009 on alternative health care
- Stem cell therapy increasing
- Paleo choices
- Cross Fit

More & more people believe that food matters

QUICK REVIEW

Body Nutritional Composition

<p>| | | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Water</td>
<td>60%</td>
<td>Carbs</td>
</tr>
<tr>
<td>Protein</td>
<td>18%</td>
<td>Vitamins</td>
</tr>
<tr>
<td>Fats</td>
<td>15%</td>
<td>Minerals</td>
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www.rejuvthritis.com
**ROLES NUTRIENTS PLAY IN HEALING**

- **WATER**
  - Transports nutrients
  - Oxygen delivery & hydration to cells
  - Lubricates tissues

- **PROTEINS**
  - Building blocks for cellular-level response
  - Help tissue regeneration
  - Provide oxygen for tissues and energy
  - Enzymes help convert essential fatty acids

- **FATS**
  - Building blocks for cell membranes
  - Prostaglandins for inflammation processes
  - Required for adequate use of proteins
  - Provide a source of long burning energy

- **CARBOHYDRATES**
  - Help regulate protein and fat metabolism
  - Help oxygen delivery
  - Promote growth of tissue
  - Lubricate joints

- **VITAMINS**
  - Essential for growth and vitality
  - Aide in digestion
  - Co-enzymes in metabolism

- **MINERALS**
  - Maintain pH
  - Contract and relax muscles
  - Regulate tissue growth
  - Structural and functional support

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**NUTRITION MATTERS**

- Nutrients are converted to a usable form of energy
- Ingredients we need to repair muscles, organs and skin
- Continual cell turnover creates state of health and resilience

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**CELL REGENERATION**

- Cellular regeneration happens continually
- 50-75 trillion in the body
- Bones and ligaments are breathing living cells that regenerate
- RBC every 4 mos.
- WBC about 1/yr.

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**Cell components come from food**

www.rejuvitrition.com

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**What do you and your patients want cells replaced with?**

www.rejuvitrition.com
PLEASE, NOT THIS!

This is not food

NUTRIENTS, NOT CALORIES

- Food choices are like selecting building materials
- Quality matters
- Combinations matter
- Nutrients must be available when cells are regenerating

PARTS IS PARTS

- Inadequate nutrition prolongs wound healing, increasing risk factors
- Malnutrition linked to decreased tensile wound strength and higher infection rates
- Vigor of patients affects recuperative activity and psychological factors
**NUTRIENTS AFFECT HEALING**

- Angiogenesis
- Inflammation reduction
- Bio-availability
- Growth factors
- Cytokines, etc.

**“EYE OF NEWT?” NO… BUT REAL FOODS DO MATTER**

**Berries.** Blueberries, raspberries, blackberries all help build up the powerful antioxidant superoxide dismutase (SOD). This is excellent for reducing oxidative stress, a key factor in liver support and the prevention of joint pain. Berries are also rich in flavonoids that reduce inflammation and repair cellular damage.

**Broccoli.** While broccoli may not be a kid favorite, it is a cruciferous vegetable rich in sulforaphane, a chemical that increases enzymes in the liver, which work to neutralize the harmful toxins we breathe. Further, all cruciferous vegetables are packed with a unique molecule called indole-3-carbinol that reduces inflammatory agents in the blood.

**Ginger root.** Ginger root does more than settle stomach issues. The knobby root contains a powerful anti-inflammatory by inhibiting the effects of arachidonic acid, a necessary fat that triggers the inflammatory response.

**Nuts and seeds.** These handy snacks have healthy fats and protein to keep you full longer and satisfy your cravings. Their benefits don’t end there: Nuts like walnuts and almonds, and seeds such as flax, hemp, and our favorite linoleic acid (ALA), a type of anti-inflammatory omega-3 fat. Seeds also contain plant sterols, also reputed for their anti-inflammatory properties.

**Mushrooms.** Long a staple in traditional medicine, mushrooms like shiitake and maitake are high in polyphenols. These are naturally known to help protect liver cells from damage. Supporting the liver is critical in fighting inflammation, because this is where we filter out toxins and break down our hormones.

**Fatty fish and seafood.** A must for any healthy diet, seafood contains eicosapentaenoic acid, a powerful anti-inflammatory type of omega-3 fatty acid. Studies show the oil in fish can act in an anti-inflammatory manner. Also great for the brain and heart!

**WHAT SCAFFOLDING FOODS DO YOU WANT?**

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SPECIFIC FOODS TO ENHANCE HEALING

- Blueberries (wild) – Anthocyanosides (antioxidants catalysts for bioflavonoids)
- Increased neurogenesis
- Purifies blood
- Slows aging on cells and organs
- Tissue regeneration - SOD and catalase

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SPECIFIC FOODS TO ENHANCE HEALING

- L-Carnosine - amino acid functions in the skeletal, muscles, brain and nervous system
- Rejuvenate cells approaching senescence (aging)
- Restoring normal appearance and extending cellular life span

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SPECIFIC FOODS TO ENHANCE HEALING

Bone broth is Rich Food
- Nutrient dense and soluble
- Easy to digest
- Boost immune system
- Loaded with minerals
- Collagen - 19 amino acids 2nd to H2O most plentiful substance in our body - gelatin - hyaluronic acid
  - Calcium
  - Phosphorous
  - Magnesium
  - Potassium

EASY TO MAKE. CHEAP. TASTY.

www.rejuvrition.com
SPECIFIC FOODS TO ENHANCE HEALING

- Green tea - bio-active components
  polyphenols - catechins (antioxidants)
- Reactivate dying skin cells
- Accelerate wound healing and decrease scarring
- Mitigate bone loss

VITAMINS = FOOD

- Vitamin A - carrots, sweet potatoes, dark leafy greens
  - Epithelial bone formation, cellular differentiation and immune function
- B-Vitamins - calf's liver, dark leafy greens, lentils, beets
  - Convert our food into fuel, reduces stress, provides antioxidants, and boosts HDL
- Vitamin C - strawberries, oranges, RBP, kale, broccoli
  - Collagen formation, immune function and a tissue antioxidant
- Vitamin D3 - sunlight, sardines, yogurt, kefir
  - Absorb calcium and bone growth
- Zinc - oysters, spinach, beef
  - Aids in nutrient absorption and digestion, helps with muscle growth and repair

BONE BROTH = GLYCOSAMINOGLYCANS

- Brown vs. White rice
- Bone broth
- Form the building blocks of proteoglycans which are the major building blocks of the extracellular matrix.
- Vital in determining the cellular activities such as cell division because the cell division machinery has to attach itself to the extracellular matrix before the division process is initiated.
- Dependent on fluid intake for availability

GAGs are good
NUTRIENTS TESTED TOGETHER

- Granulocyte-macrophage colony stimulating factor (GM-CSF)
- Produced naturally by bone marrow to stimulate cell activity
- Single nutrients showed no results
- Synthetic GM-CSF 46%
- Combinations of nutrients 62-83%
  - Blueberries; green tea extract
  - Blueberries; green tea extract; D3
  - Blueberries; L-carnosine

MORE SPECIFIC FOODS

- Broccoli - rich in folic acid (helps bone marrow cells to differentiate into mature WBC)
- Broccoli sprouts - high in glucoraphanin precursor to sulforaphane (SGS) antioxidant 30-50 x more than broccoli
- Mushrooms - Chaga (SOD and sterols) block oxidative damage of tissues - very new studies

MINDFULNESS

- 78 participants
- 113 degree stimulus to the leg twice
  - Book on tape 3%
  - Placebo analgesic cream 1%
  - Shamatha meditation 22% = morphine
  - Mindfulness meditation 44% = dbl morphine
WHAT A DAY MIGHT LOOK LIKE

– Wake up - mindfulness
– Green tea - polyphenols

BREAKFAST

Morning smoothie
Blueberry Energizer

Yogurt, almond milk and or kefir, hemp protein powder and or gelatin and greens
Blueberries, chia seeds, flax and or hemp and coconut milk

MORNING BREAK

Chaga tea with coconut milk
Apple-nut butter
**LUNCH**
Kale and broccoli salad with grilled salmon and EVOO dressing, topped with a fermented veggie, broccoli & sprouts

**AFTERNOON SNACK**
1-2 cups of bone broth
Avocado with olive oil

**DINNER**
- Grass fed flank steak
- Spinach
- Sweet potatoes and or roasted carrots
NO EXCUSES

$8 lb. $16 lb.
$2/burger $4/burger

DESSERT

Coconut Ice Cream

This might be a little much

WATER

Dehydration delays tissue recovery

Drink half body weight in ounces. Quality matters. No more than 100 ounces each day.
SUPPLEMENTS

- Omega 3’s (fish oil)
- B-Vitamins
- Vitamin C
- Vitamin D3
- Zinc (if needed)
- Turmeric (pre-procedure)

SIDE EFFECTS OF REGENERATIVE MEDICINE AND HEALTHY FOOD

AND FOOD IS SAFE
SIDE EFFECTS OF THE STANDARD AMERICAN DIET

BIOINDIVIDUAL CASE STUDY - 1

Female 40 yo (vegetarian), professional

- Complaints: Idiopathic migraines, over-weight, fatigue, stressed; bloating with stomach pain.
- Bio individual Plan:
  - Sugar control food plan reduce inflammation & adrenal fatigue
  - MRT – Remove sensitive foods
  - Bone broth
  - Digestion protocol
  - Traveling food plan
  - Hydration
  - Activity calendar
- Post Report: weight loss, eliminated stomach issues, overall stress reduction, more energy sleeps all night feels great when wakes up

BIOINDIVIDUAL CASE STUDY - 2

Male 60 yo athlete; peak form-cyclist; long-term

- Complaints: muscle cramps, bloating, GERD, fatigue, frequent steroid injections and brain fog
- Bio individual Plan:
  - Remove sensitive foods
  - Sugar control food plan
  - Replaced all energy boots with natural options
  - Digestive supplemental program
  - Hydration and natural minerals
  - Remove amalgam fillings
  - PIP
- Post Report:
  - Steroid injections
  - GERD and bloating gone
  - Muscle cramping eliminated
  - Brain fog much better
**BIO-INDIVIDUAL CASE STUDY - 3**

Female, 50 yo active business owner

- Complaints: IBS, bloating and chronic knee pain and stress

- Bio-individual Plan:
  - Remove sensitive foods
  - Anti-inflammatory food plan
  - Healing gut foods
  - jupe
  - Mindfulness
  - Bio-individual supplemental program

- Post Report:
  - IBS controlled
  - Bloating totally eliminated
  - Knee pain reduced
  - Stress reduction

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**BIO-INDIVIDUAL CASE STUDY - 4**

Female 62 yo active teacher

- Complaints: Rosacea, GERD, constipation and poor bone health

- Bio-individual plan
  - Gallbladder cleanse
  - Castor packing
  - Lymph drainage massage monthly
  - Food plan with fermented and cultured foods
  - Supplemental program

- Post report
  - Rosacea eliminated
  - GERD and constipation gone
  - Osteopenia under control
  - Weight loss
  - More energy, skin is cleaner, better sleep and bone health improving

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**TWO WAYS TO GET STARTED**

1. COOKIE CUTTER – STANDARD PLANS

2. BIO-INDIVIDUAL – CONCIERGE PRACTICE
1. COOKIE CUTTER – STANDARD PLANS

Generic plan
1. Pre-procedure
   – Anti-inflammatory food plan for at least 2 weeks
2. Post-op
   – Give a list of foods post procedure
   – Supplements for post procedure

STANDARD ORTHOPEDIC FOOD LIST

2. FOR THE CONCIERGE PRACTICE

YOU MIGHT:
1. Run an MRT
2. Create a personal anti-inflammatory food plan
3. Short term plan and long term plan
4. Supplemental protocol based on your findings
5. Hire or associate with an NTP, RD, CN & make them a part of your practice
6. Create bio-individual culinary program for each client based on their personal needs
BIO-INDIVIDUAL PROCESS EXAMPLE

TIP 3 - FOOD SENSITIVITIES

WE RUN AN MRT ON EVERY PATIENT

- Mediated response
- Inflammation
- Digestive issues
- Bio-Individual food sensitivities

PERSONAL PLAN

1. Short term plan
   - Hydration recommendation
   - Make "sole" mineral water
   - Make digestive tea with slippery elm bark and marshmallow root
   - Start each morning with sole ACV water 16 oz.
   - Have goat yogurt 4 x each week
2. Long term plan
   - Take MRT
   - Activate digestion to function optimally
   - Gallbladder cleanse
   - Correct EFA imbalance
   - Address Immune system
   - Support adrenals with food plan, supplements and mindfulness
   - Create bio-individual food plan
WRAP-UP

- Does nutrition matter?
- Can foods enhance outcomes?
- Ways to get started
- Why not?

MY WORK

- "Rejuvitrition" is about how to rejuvenate the body through nutritional and lifestyle choices.
- Rejuvitrition Pillars:
  - Nourish
  - Cleanse
  - Renew
  - Move
  - Live
- Certified Nutritional Therapy Practitioner; GAPs Practitioner; Restorative Wellness Practitioner; Certified Healing Food Specialist, Culinary degree from The Art Institute of Pittsburgh.