

**What If You've Been Missing the Most
Powerful Tools in Modern Medicine?
Functional Medicine & Peptide
Therapy: A New Approach to Patient
Transformation**

Educational Webinar

Disclaimer:
This course is for educational purposes only and is not intended to diagnose, treat, or cure any disease. Regenerative Medical Academy assumes no liability for how the information is applied. Participants must be licensed professionals authorized to perform the procedures discussed. No endorsement is made regarding specific injection techniques for any condition. Each provider is responsible for using independent medical judgment and ensuring procedures align with community standards of care.

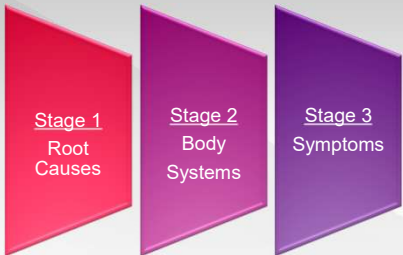
1

DR. JOSEPH P. GAMBARDELLA, D.C., ABAAPH, FSCT, FAFMF

- Fellowship-Trained in Functional & Regenerative Medicine through the A4M and Kalish Institute of Functional Medicine
- Certified in Peptide Therapy – Expertise in hormone replacement, spinal decompression, and cutting-edge regenerative medicine.
- Over 26 Years of Clinical Experience – Founder of Regenerative Medical Academy, Advanced Physical Medicine & Rehabilitation of Miami and Jupiter Disc Center, integrating functional medicine, regenerative therapies, and non-surgical spinal care.
- Sports Medicine Background – Former Assistant Physician for the University of Miami football team and the FIU Women's Sand Volleyball.
- Industry Contributor & Educator – Contributor to The Ultimate Spinal Decompression Book and The World's Best Kept Health Secret Revealed, and host of the Healthy Dose Podcast

2

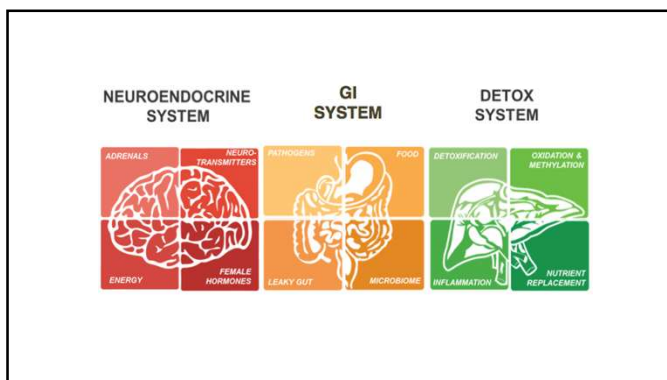
UNDERSTANDING FUNCTIONAL MEDICINE



3



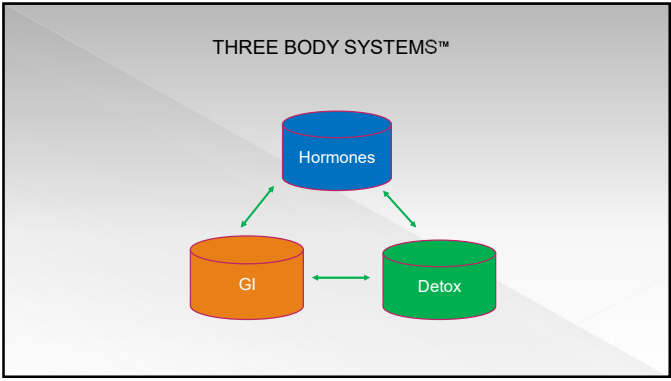
4



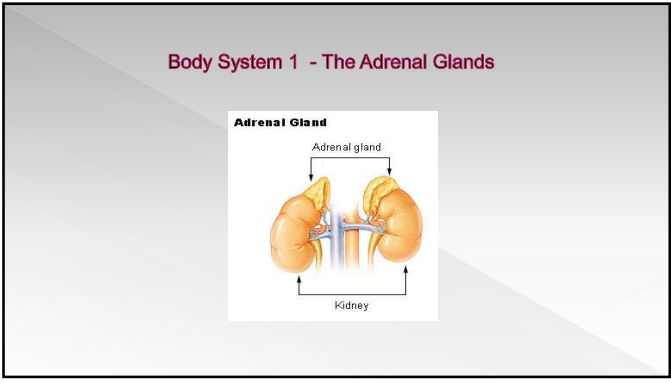
5



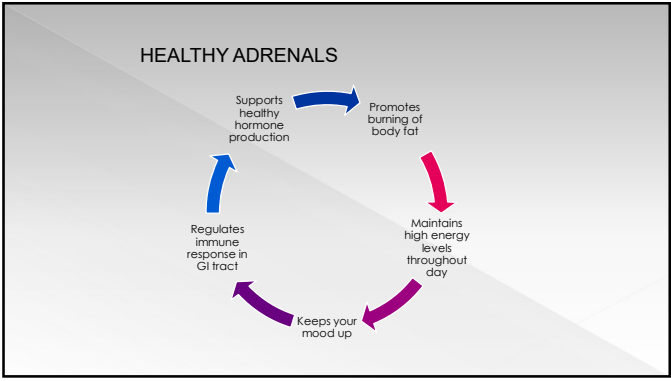
6



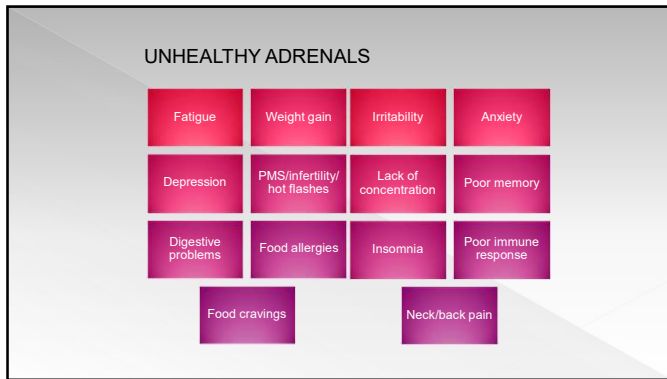
7



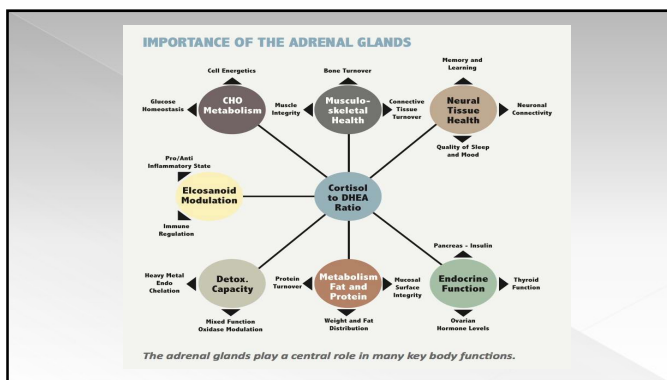
8



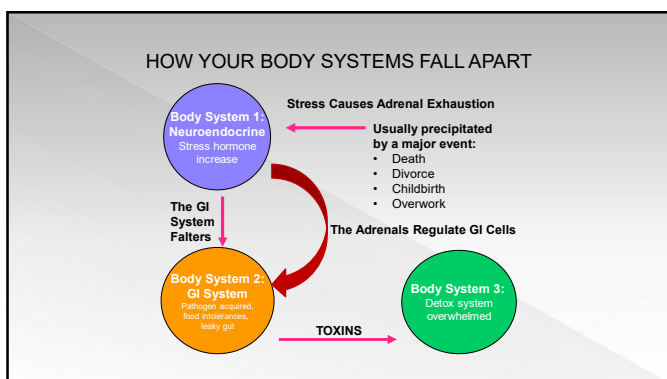
9



10



11

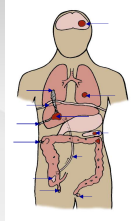


12

HOW DO THE ADRENAL GLANDS AFFECT THE GI TRACT – SECOND BODY SYSTEM (SECOND BRAIN)?

HIDDEN INFLAMMATION

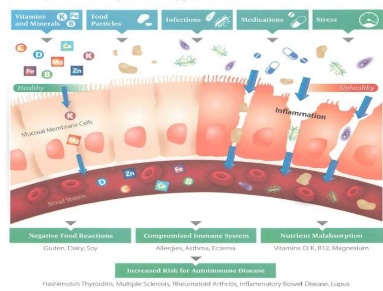
- Disruption of the microbiome
- GI Organ dysfunction
- Infections
- Bacteria, worms, parasites, yeast, viruses
- **Leaky Gut**



13

Intestinal Permeability

The gastrointestinal barrier controls and permits the absorption of helpful substances into the bloodstream while keeping out those that are harmful. In healthy people, the barrier is tightly regulated, allowing only important nutrients to pass through the gut and protecting the body from harmful substances such as toxins, undigested food and pathogens. Since the gut is constantly exposed to food, microbes and chemicals, the GI tract must continuously defend against unwanted substances that, if allowed entry into the body, can cause a vicious cycle of inflammation. The constant exposure to foreign substances can cause the walls of the intestine to become vulnerable to deterioration and permeability, a condition commonly referred to as leaky gut syndrome.



14

WARNING SIGNS OF A LEAKY GUT

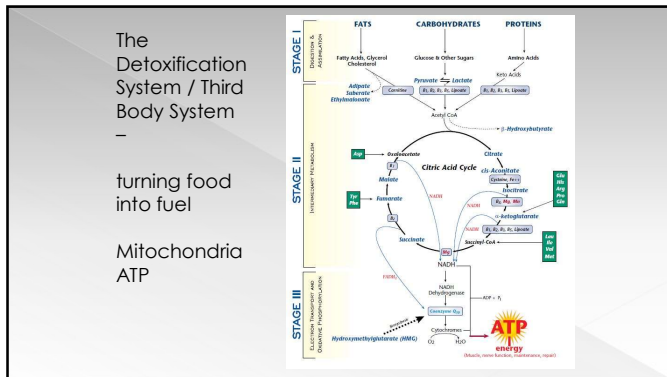
- Constipation, diarrhea, or alternating of these
- Gas, bloating
- Joint & muscle aches and pains
- Increase in allergies resulting from leaky gut
- Chronic fatigue
- Autoimmune Conditions / Rashes

OR

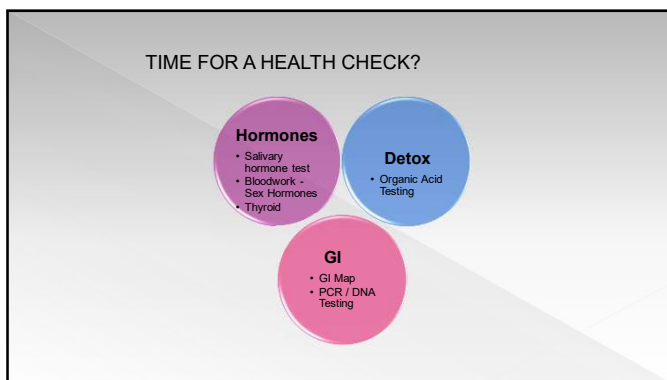
- No symptoms whatsoever



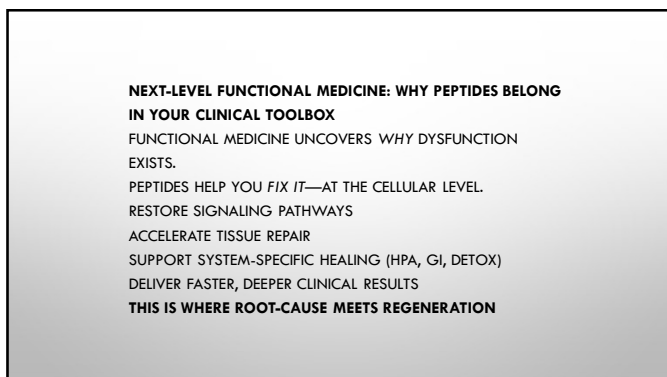
15



16



17



18

- PEPTIDES ARE SHORT CHAINS OF AMINO ACIDS THAT FUNCTION AS SIGNALING MOLECULES IN THE BODY.
- THEY REGULATE VARIOUS BIOLOGICAL FUNCTIONS, INCLUDING HEALING, METABOLISM, AND MUSCLE GROWTH.

19

HOW PEPTIDES WORK

- PEPTIDES BIND TO SPECIFIC RECEPTORS ON CELLS, TRIGGERING BIOLOGICAL RESPONSES.
- THEY ARE INVOLVED IN HORMONE REGULATION, TISSUE REPAIR, AND IMMUNE FUNCTION.

20

TYPES OF PEPTIDES

- CATEGORIES INCLUDE:
- - GROWTH HORMONE SECRETAGOGUES (E.G., IPAMORELIN, SERMORELIN, CJC-1295)
- - HEALING AND RECOVERY PEPTIDES (E.G., BPC 157, TB 500)
- - METABOLIC AND LONGEVITY PEPTIDES (E.G., GLP-1, TIRZEPATIDE, RETATRUTIDE, NAD+, MOTS-C)

21

BODY SYSTEM 1 – NEUROENDOCRINE OPTIMIZATION

NEUROENDOCRINE RESET: OPTIMIZING THE HPA AXIS & GROWTH HORMONE SECRETION PEPTIDES:

- CJC-1295 – STIMULATES GHRH TO INCREASE NATURAL GH AND IGF-1
 - IPAMORELIN – GHRELIN RECEPTOR AGONIST THAT AMPLIFIES GH PULSE WITH MINIMAL SIDE EFFECTS
 - SERMORELIN – PROMOTES NATURAL GH RELEASE; SUPPORTS PITUITARY FUNCTION
- KEY CLINICAL BENEFITS:
- IMPROVES SLEEP, MOOD, AND COGNITIVE CLARITY
 - SUPPORTS LEAN MUSCLE GROWTH AND FAT LOSS
 - ENHANCES RECOVERY AND ENERGY THROUGH GH/IGF-1 AXIS SUPPORT
 - A FOUNDATIONAL STEP IN REVERSING ADRENAL FATIGUE AND BURNOUT

22

**IPAMORELIN: GROWTH
HORMONE SECRETAGOGUE**

- INCREASES NATURAL GROWTH HORMONE PRODUCTION
- IMPROVES SLEEP, MUSCLE MASS, AND FAT LOSS
- NO IMPACT ON CORTISOL OR PROLACTIN LEVELS

23

**SERMORELIN: GROWTH
HORMONE RELEASING PEPTIDE**

- STIMULATES NATURAL GROWTH HORMONE RELEASE
- SUPPORTS ANTI-AGING AND COGNITIVE FUNCTION
- ENHANCES MUSCLE GROWTH AND FAT METABOLISM

24

CJC-1295 WITHOUT DAC (DRUG APPETITE COMPLEX)

- ENHANCES NATURAL GH RELEASE WITHOUT PROLONGED STIMULATION
- IMPROVES MUSCLE RECOVERY AND SLEEP QUALITY
- SUPPORTS LEAN MUSCLE GROWTH AND FAT LOSS

25

BODY SYSTEM 2 – GASTROINTESTINAL & METABOLIC FUNCTION

GUT-BRAIN-GLUCOSE AXIS: PEPTIDES FOR APPETITE, MICROBIOME, AND METABOLIC RESET

PEPTIDES:

- SEMAGLUTIDE – GLP-1 RECEPTOR AGONIST FOR SATIETY AND INSULIN SENSITIVITY
- TIRZEPATIDE – DUAL GIP/GLP-1 AGONIST FOR GLYCEMIC AND WEIGHT CONTROL
- RETATRUTIDE – TRIPLE AGONIST (GIP/GLP-1/GLUCAGON) FOR COMPREHENSIVE METABOLIC OPTIMIZATION

KEY CLINICAL BENEFITS:

- REDUCES APPETITE AND VISCERAL FAT
- IMPROVES GUT-BRAIN SIGNALING AND SLOWS GASTRIC EMPTYING
- SUPPORTS MICROBIOME HEALTH THROUGH NORMALIZED MOTILITY
- CORRECTS METABOLIC DYSFUNCTION ROOTED IN GI IMBALANCE

26

GLP-1 PEPTIDES: SEMAGLUTIDE & TIRZEPATIDE

- REGULATE BLOOD SUGAR AND REDUCE APPETITE
- PROMOTE WEIGHT LOSS AND IMPROVE INSULIN SENSITIVITY
- LOWER CARDIOVASCULAR DISEASE RISK

27

TIRZEPATIDE VS. SEMAGLUTIDE

- TIRZEPATIDE IS A DUAL GIP/GLP-1 RECEPTOR AGONIST
- MORE POTENT APPETITE SUPPRESSION AND METABOLIC BENEFITS THAN SEMAGLUTIDE
- REDUCES BODY FAT MORE EFFECTIVELY

28

RETATRUTIDE: THE NEXT-GEN PEPTIDE

- TRIPLE RECEPTOR AGONIST (GLP-1, GIP, AND GLUCAGON)
- MAXIMIZES WEIGHT LOSS AND METABOLIC REGULATION
- SHOWS PROMISE IN OBESITY TREATMENT
- MINIMIZES SARCOPENIA ASSOCIATED WITH WEIGHT LOSS

29

BPC 157: THE HEALING PEPTIDE

- ACCELERATES WOUND HEALING AND TISSUE REGENERATION
- REDUCES INFLAMMATION AND SUPPORTS GUT HEALTH
- ENHANCES MUSCULOSKELETAL RECOVERY

30

TB 500: TISSUE REPAIR PEPTIDE

- PROMOTES MUSCLE AND JOINT REPAIR
- ENHANCES FLEXIBILITY AND REDUCES INFLAMMATION
- SPEEDS UP RECOVERY FROM INJURIES

31

BODY SYSTEM 3 – LIVER DETOX & MITOCHONDRIAL ENERGY

CELLULAR POWER & DETOX: PEPTIDES FOR MITOCHONDRIAL AND LIVER FUNCTION
PEPTIDES:

- NAD+ (PUSH PATCH OR IV) – ESSENTIAL COENZYME FOR ATP PRODUCTION, DNA REPAIR, AND DETOX ENZYME FUNCTION
- MOTS-C – MITOCHONDRIAL-ENCODED PEPTIDE THAT ENHANCES ENERGY METABOLISM, INSULIN SENSITIVITY, AND STRESS ADAPTATION

KEY CLINICAL BENEFITS:

- INCREASES CELLULAR ENERGY AND REDUCES FATIGUE
- ENHANCES PHASE I & II LIVER DETOX PATHWAYS
- SUPPORTS MITOCHONDRIAL REPAIR AND RESILIENCE
- CRUCIAL FOR LONGEVITY, INFLAMMATION CONTROL, AND METABOLIC REPAIR

32

NAD+: Cellular Energy & Detox Support

Fuels ATP production via enhanced mitochondrial oxygen utilization

- Promotes mitochondrial repair, telomere health, and anti-aging pathways
- Aids liver detoxification by reducing inflammation and oxidative stress
- Enhances cognition and immune regulation through extracellular signaling
- Optimized via Push Patch or IV delivery for intracellular and extracellular absorption
- Synergizes with BPC-157 to promote stem cell signaling, vascular regeneration, and tissue repair

Outcome: Increased energy, accelerated recovery, and improved detox capacity at the cellular level

33

MOTS-C: THE MITOCHONDRIAL PEPTIDE

- ENHANCES MITOCHONDRIAL FUNCTION AND ENERGY PRODUCTION
- INCREASES INSULIN SENSITIVITY AND PROMOTES FAT METABOLISM
- SUPPORTS LONGEVITY AND EXERCISE ENDURANCE

34

PEPTIDE ADMINISTRATION

- INJECTABLE (MOST EFFECTIVE DELIVERY METHOD)
- ORAL (SOME PEPTIDES AVAILABLE IN CAPSULE FORM)
- NASAL SPRAYS (FOR BRAIN-RELATED PEPTIDES)

35

SAFETY AND SIDE EFFECTS

- MOST PEPTIDES HAVE LOW TOXICITY AND MINIMAL SIDE EFFECTS
- POTENTIAL SIDE EFFECTS: INJECTION SITE IRRITATION, NAUSEA, FATIGUE
- CONSULT A HEALTHCARE PROVIDER BEFORE USE

36

BEST PRACTICES FOR PEPTIDE USE

1. ALWAYS DO TESTING
 1. FUNCTIONAL LABS (E.G., DUTCH, GH-MAP, METABOLOMIX) AND GENETIC PANELS IDENTIFY THE ROOT CAUSE OF DISEASE AND DYSFUNCTION
 2. KEY MARKERS: CORTISOL RHYTHM (ADRENAL), DYSBIOSIS/INFLAMMATION (Gut), METHYLATION AND OXIDATIVE STRESS (DETOX/GENETICS)
 3. GUIDES TARGETED PEPTIDE SELECTION AND IMPROVES CLINICAL OUTCOMES
2. CYCLE PEPTIDES TO PREVENT DESENSITIZATION
 1. FOLLOW STRUCTURED ON/OFF PROTOCOLS TO MAINTAIN RECEPTOR SENSITIVITY
 2. EXAMPLE: 5 DAYS ON / 2 OFF OR MONTHLY ROTATION PROTOCOLS
3. USE PROPER DOSING AND TIMING STRATEGIES
 1. TIME GROWTH HORMONE PEPTIDES (E.G., CJC/Ipamorelin) PRE-BED OR POST-FASTED WORKOUT
 2. USE MITOCHONDRIAL/ENERGY PEPTIDES (E.G., NAD+, MOTS-C) IN THE AM
 3. TITRATE BASED ON LAB RESPONSE, CLINICAL GOALS, AND PATIENT FEEDBACK
4. COMBINE WITH PROPER DIET AND EXERCISE FOR MAXIMUM BENEFITS
 1. ANTI-INFLAMMATORY DIET, RESISTANCE TRAINING, AND AEROBIC CONDITIONING ENHANCE RESULTS
 2. PEPTIDES AMPLIFY, BUT DO NOT REPLACE, FOUNDATIONAL LIFESTYLE INTERVENTIONS

37

LEGAL AND REGULATORY CONSIDERATIONS

- PEPTIDES ARE AVAILABLE THROUGH COMPOUNDING PHARMACIES
- RESEARCH PEPTIDES EXIST, BUT QUALITY VARIES
- SOME PEPTIDES ARE PRESCRIPTION-ONLY

38

FUTURE OF PEPTIDES IN MEDICINE

- INCREASING RESEARCH IN REGENERATIVE MEDICINE
- POTENTIAL FOR TREATING NEURODEGENERATIVE DISEASES
- EXPANDING USE IN METABOLIC AND CHRONIC DISEASE MANAGEMENT

39

KEY TAKEAWAYS

- PEPTIDES ARE POWERFUL TOOLS FOR HEALING, LONGEVITY, AND PERFORMANCE
- DIFFERENT PEPTIDES SERVE DIFFERENT PURPOSES
- PROPER ADMINISTRATION AND STACKING ENHANCE BENEFITS

40

NEXT STEPS

- CONSULT A FUNCTIONAL MEDICINE PROVIDER FOR PEPTIDE THERAPY
- CONSIDER LAB TESTING TO ASSESS HORMONE AND METABOLIC HEALTH
- IMPLEMENT LIFESTYLE CHANGES ALONGSIDE PEPTIDE USE

41

ETHICAL & LEGAL CONSIDERATIONS

- ENSURE PEPTIDES ARE SOURCED FROM REPUTABLE PHARMACIES
- RESEARCH PEPTIDE LEGALITY IN YOUR REGION
- BE MINDFUL OF ANTI-DOPING REGULATIONS IN COMPETITIVE SPORTS

42

CLOSING THOUGHTS & NEXT STEPS

- PEPTIDES OFFER TARGETED SUPPORT FOR REGENERATION, LONGEVITY, AND PERFORMANCE
- DOSING, TIMING, AND CYCLING ARE KEY TO OPTIMIZING BENEFITS
- FUNCTIONAL MEDICINE INTEGRATES PEPTIDES WITH LIFESTYLE INTERVENTIONS FOR BEST OUTCOMES
- CONSULT A SPECIALIST BEFORE STARTING ANY PEPTIDE PROTOCOL

43

THE MORE YOU UNDERSTAND THE BODY, THE MORE YOU CAN TRANSFORM LIVES.

DR. JOSEPH GAMBARDILLA

FUNCTIONAL MEDICINE & REGENERATIVE THERAPY EDUCATOR

EMAIL: FUNCTIONALMED@APMRMIAMI.COM

WEBSITE: WWW.REGENERATIVEMEDICALACADEMY.COM

LIVE TRAINING. ON-DEMAND COURSES. HANDS-ON INJECTION INTENSIVES.

- THE RESULTS YOU'VE ALWAYS WANTED START WITH THE EDUCATION YOU WERE NEVER GIVEN.

44
