INTRODUCTION TO FUNCTIONAL MEDICINE

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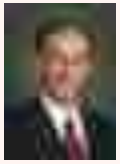

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DISCLOSURE STATEMENT

I have no affiliations or financial disclosures to any company, product, or service mentioned in the presentation

OBJECTIVES

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- Define Functional Medicine (FM)
- Compare FM to Allopathic Medicine (AM)
- Describe the overall goals of FM
- List some methods of treatment used in FM
- Recognize how FM can be a beneficial adjunct to your practice

AM DEFINED

ALLOPATHIC MEDICINE

- Science Based
- Silo based
- Systems not connected
- Problem = PILL
- Linear algorithm approach (cookbook medicine)
- No individualization

SCIENCE BASED

- Research
- Physiology
- Mechanisms
- Interactions
- Placebo controlled - double blind

SILO BASED

- Multiple specialists
- No one talks to each other
- Conflicting therapies

PUSH PILLS

- Pill for every problem
- Treat symptoms
- Pills for pills

ALGORITHM BASED

- If this, then that
- No personalization
- Every person is treated the same way
- Person = disease

FM DEFINED

WHAT IS FUNCTIONAL MEDICINE?

systems biology–based approach that focuses on identifying and addressing the root cause of disease. (1)

FUNCTIONAL MEDICINE

- Science based
- Personalized
- Treat causes not symptoms
- Root cause
- Restore optimal health
- Improve function
- Person doesn't equal the disease

SCIENCE BASED

- Research
- Physiology
- Mechanisms
- Interactions
- Placebo controlled - double blind

PERSONALIZED

- Unique
- Genetic differences
- Environment
- History

CAUSES NOT SYMPTOMS

- Root cause
- Internal and external factors
- Diet
- Stress (allostatic load)
- Biochemical individuality

OPTIMAL HEALTH

- Improve stress response
- Improve energy
- Improve bowel
- Address nutritional imbalance
- Balance hormones

IMPROVE FUNCTION

- Sugar regulation
- Structure
- Improve digestion
- Renal function

PERSON IS NOT DISEASE

- Holistic approach
- Multi-systems approach

HOW DOES IT WORK?

BASICS

- Diet
- Lifestyle
- Stress
- Poly-Pharmacy

ALLOSTASIS

active process that leads to adaptation to a stressor (2)

Mediators include:
Nervous System
Endocrine System
Immune System

ALLOSTATIC OVERLOAD

cost of chronic exposure to elevated or fluctuating endocrine or neural responses resulting from chronic or repeated challenges that the individual experiences as stressful. (3)

From: International Encyclopedia of the Social & Behavioral Sciences, 2001

EXAMPLES

- Traumatic event
- Overeating
- Lack of Sleep
- Work stress
- Home life
- Heavy metals
- Pathogen infection
- Physical trauma
- Poor dietary habits
- Food sensitivities
- Environmental allergies
- Molds

A WORD ABOUT INFLAMMATION

Linked to numerous chronic diseases

Over 50% of all deaths

Ischemic Heart Disease	Stroke
Cancer	Diabetes
CKD	NAFLD
Autoimmune	Neurodegenerative

(4)

(5)

(6)

(7)

CHILDHOOD TRAUMA AND CHRONIC DISEASE

Link between childhood experiences and long term health/illness, including cardiac, metabolic, endocrine and inflammation

(8)

OXIDATIVE STRESS

defined as a disturbance in the balance between the production of reactive oxygen species (free radicals) and antioxidant defenses

(9)

(10)

ANTI-OXIDANT FOODS

Smalls red beans	Blueberies	Red kidney beans	Pinto beans
Cranberries	Artichokes	Blackberries	Prunes
Raspberries	Strawberries	Red delicious apples	Granny Smith apples
Pecans	Sweet cherries	Black plums	Russet potatoes
Black Beans	Plums	Gala apples	Dark leafy greens

(11)

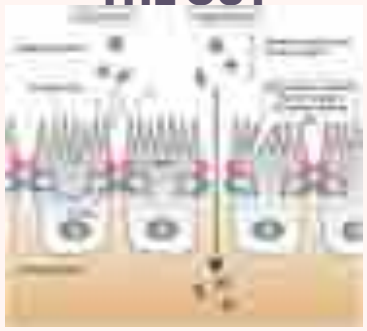
(12)

“LET FOOD BE THY MEDICINE AND LET THY MEDICINE BE FOOD”

Hippocrates 440 BC

(13)

THE GUT



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MICROBIOME

DYSBIOSIS

an imbalance between the types of organism present in a person's natural microflora, especially that of the gut, thought to contribute to a range of conditions of ill health.

(16)

DYSBIOSIS

- Atopic Diseases (allergic asthma, atopic dermatitis, allergic rhinitis)
- Diabetes
- IBD/IBS
- Obesity
- Mental Health Conditions
- Metabolic Syndrome (T2DM, CVA, HTN, >BGL, Dyslipidemia, >Abdominal Fat)

DIETARY CHANGES

- **Food allergies/sensitivities**
- **Healthier choices**
- **Macronutrient balance**
- **Water intake**
- **Anti-inflammatory foods**
- **Anti-osidants**

NUTRITIONAL SUPPLEMENTATION

- **Gut health**
- **Anti-oxidants**
- **Anti-inflammatories**
- **Stress relief**
- **Sleep aides**
- **Specific conditions**

LIFESTYLE CHANGES

- **Stress relief/Mental health**
- **Exercise/movement**
- **Proper sleep/rest**

SUMMARY

Functional Medicine provides a scientifically based framework to provide truly personalized care to our patients

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