

The Functional Medicine Approach

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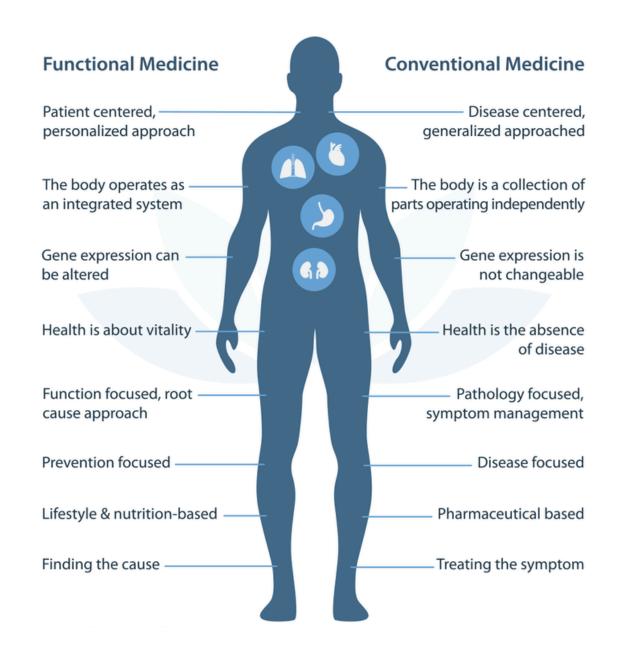
What is Functional Medicine?

- Holistic approach examining interplay of biological systems
- Identifies root causes of chronic illness rather than just treating symptoms
- Integrates lifestyle, nutrition, genetics, and environmental factors
- Aims for disease prevention through personalized interventions



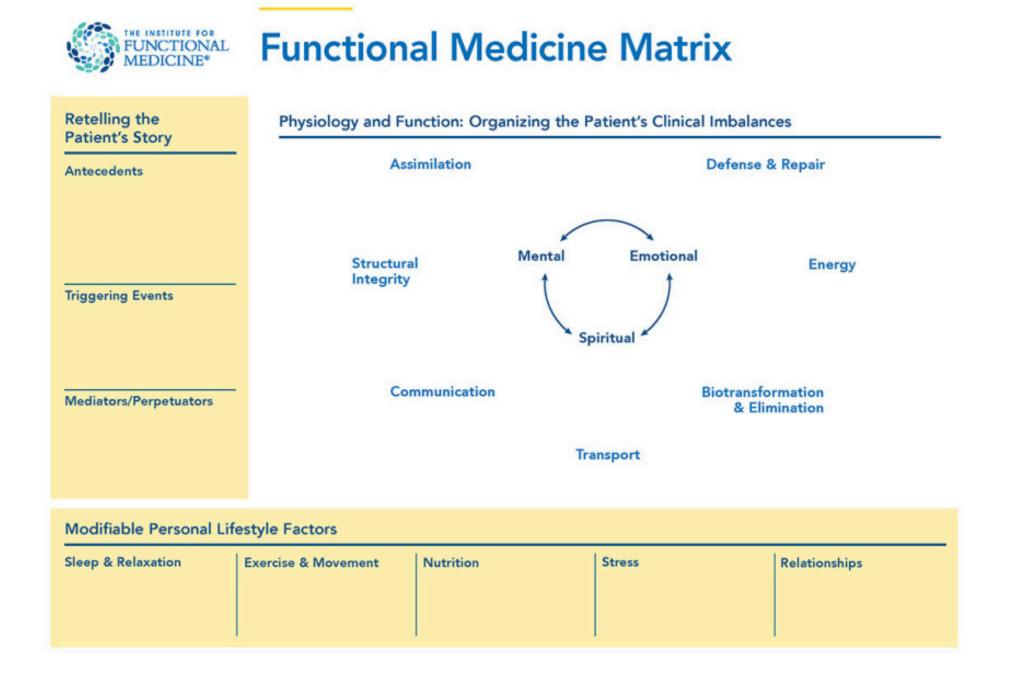
Core Principles of Functional Medicine

- Individualized, patient-centered care
- Root cause resolution rather than symptom suppression
- Systems biology perspective: interconnected body functions
- Preventative and proactive healthcare model





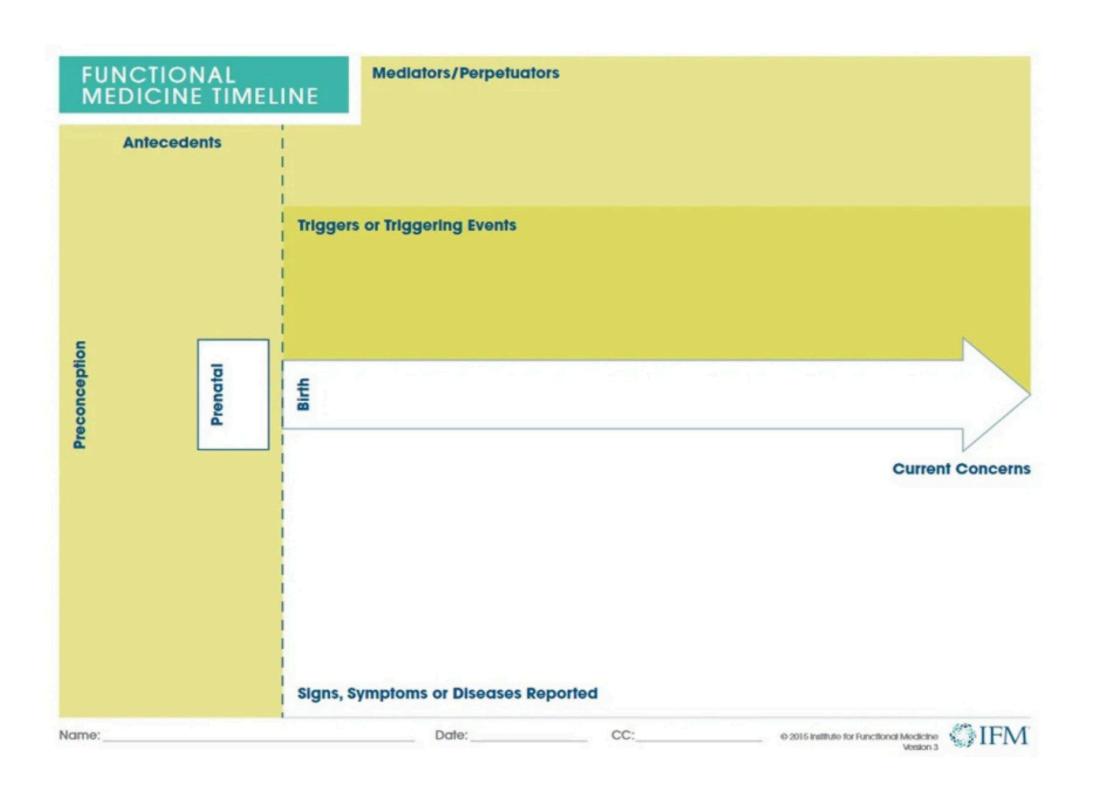
The Functional Medicine Matrix



- Framework for analyzing health concerns
- Categorizes clinical imbalances in different systems (e.g., immune, gastrointestinal, endocrine)
- Considers genetic predispositions and environmental exposures
- Facilitates a targeted therapeutic approach



The Timeline Tool

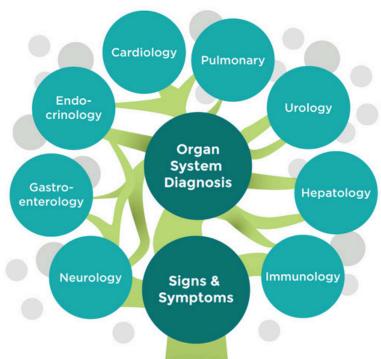


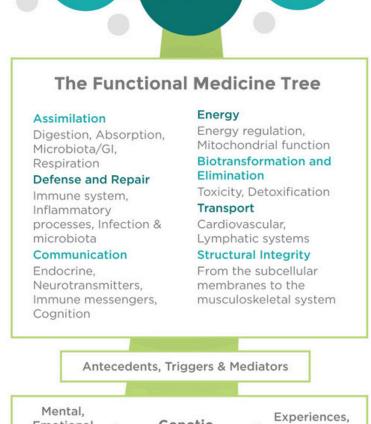
- Chronological mapping
 of a patient's health
 history
- Identifies triggers and antecedents of disease
- Helps reveal patterns
 and contributing factors

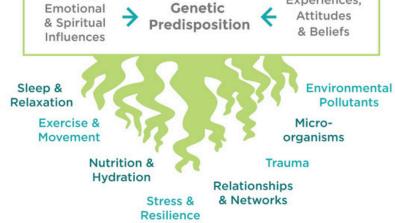


Systems Biology Approach

- Considers the body as an interconnected system
- Emphasizes the influence of gut health, inflammation, and immune function
- Recognizes cross-system interactions (e.g., gutbrain, immune-metabolic)









Role of Lifestyle Factors

- Diet, exercise, and sleep as fundamental health determinants
- Chronic stress and its physiological impact
- Environmental toxins and their role in disease pathology





Nutritional Approaches

MTHFR Polymorphisms

MTHFR Gene

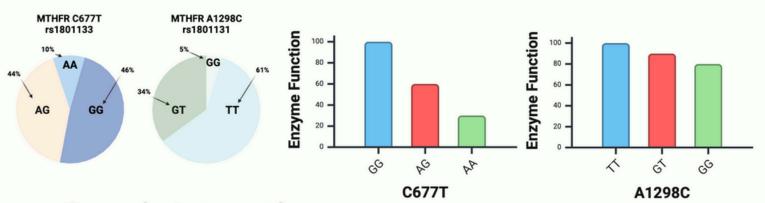
- Encodes methylenetetrahydrofolate
- Enzyme key to converting folate for use in methylation cycle

MTHFR Variants

Increases the risk of:

- High homocysteine
- Heart disease, strokes
- Miscarriages, fertility issues
- Depression, anxiety
- Migraines
- Arsenic detox problems
- Mercury detox problems
- Endothelial dysfunction
- Histamine intolerance





Genetic Interactions

- Vitamin B12 variants
- MTHFD1 & choline genes
- Slow COMT

C677T Benefits

 Decreases risk of several types of cancer

Possible Solutions

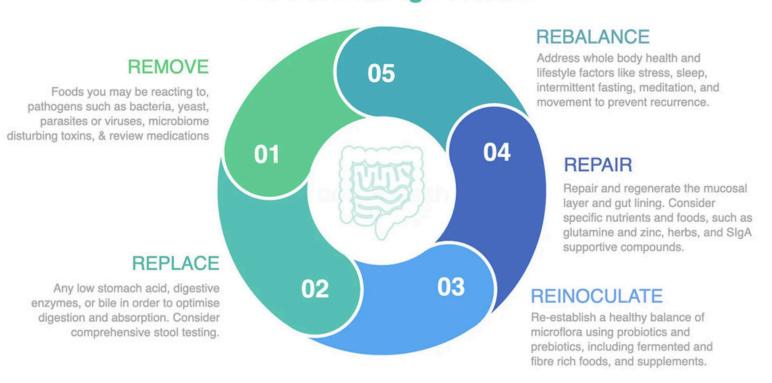
- Folate-rich foods
- Supplemental methylfolate*
- Supplemental B12*
- Creatine
- Choline
- *Check COMT before starting methyl supplements

- Therapeutic nutrition as a cornerstone of health
- Elimination diets to identify food sensitivities
- Use of micronutrients,
 phytonutrients, and targeted
 supplementation

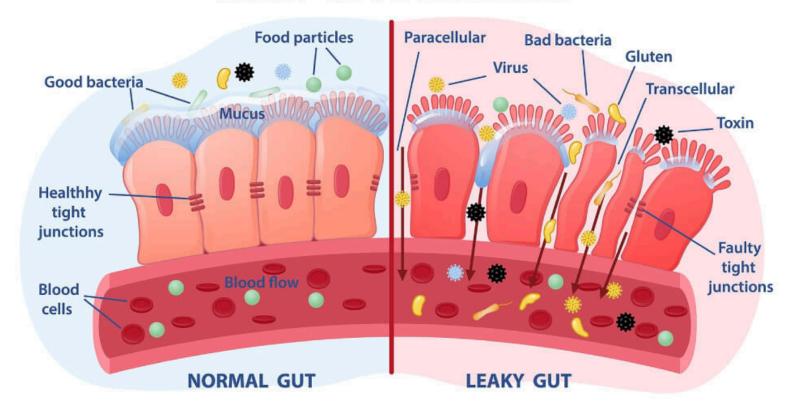


Gut Health in Functional Medicine

5 R Gut Healing Protocol



LEAKY GUT SYNDROME



- Gut microbiome as a critical determinant of systemic health
- Leaky gut and its association with autoimmune diseases
- Role of prebiotics, probiotics, and gut-healing protocols



Inflammation and Chronic Disease

Nutrient Leaky Gut Insulin Deficiencies Surges • ~80% of your immune Most people with system lives in your gut to autoimmunity are deficient Underlying issues with protect you from "foreign in basic nutrients to regulate regulating blood sugar invaders" the immune system such as commonly contribute to • An unhealthy gut barrier vitamin D3, omega 3s and inflammatory insulin surges leads to overactivation of glutathione regardless of diabetes the immune system diagnosis Toxins/Chemicals **Chronic Infections Immune Upregulation** • Our environment and lifestyle • Underlying infections are is often full of hidden toxins not always symptomatic and chemicals that impact and can reactivate leading our immune systems and to immune stress and ability to detox autoimmune attack Food Estrogen Adrenal Fatigue Mental/ Dominance Sensitivities Chronic stress leads to chronic **Emotional** Hormones are the chemicals Sometimes the biggest inflammation and immune that tell our cells what to do

and imbalances lead to the

Excess estrogen in particular is

very inflammatory and can

impact the immune system

wrong signals

Mental emotional stress

and trauma have been

identified as common

factors for developing

autoimmunity

underlying predisposing

culprits are what we eat

inflammatory foods such

as grains, dairy and sugar

on a regular basis

Most people react to

upregulation especially when the

adrenals can no longer adapt to

all the stress our bodies

encounter on a daily basis

- Chronic low-grade inflammation as a driver of disease
- Role of inflammatory biomarkers (CRP, cytokines, etc.)
- Intervention strategies to mitigate inflammation



Addressing Stress and Mental Health

- Mind-body connection and psychoneuroimmunology
- Impact of cortisol dysregulation on metabolic and immune function
- Integrative stress-management techniques



Functional Medicine Labs

- Advanced diagnostics for deeper insights
- Genomic testing, microbiome analysis, and metabolic panels
- Personalized biomarker tracking for precision medicine



Functional Medicine in Practice

- Case study highlighting personalized treatment success
- Illustrates root cause resolution in real-world application



Challenges and Criticisms

- Accessibility and cost considerations
- Need for more large-scale clinical trials
- Integration with conventional medical systems

