Putting Wellness into your Life and your Practice

Michele L Neil-Sherwood D.O.
Internal Medicine
Sports Medicine
Functional Medical Institute Tulsa Oklahoma
The WELLNESS LIFE is not only possible for you; it is your destiny!
OBJECTIVES:

- What defines wellness - it is more than just absence of disease

- Explore how inflammation/metabolic syndrome are precursors to all chronic disease

- Putting Wellness into your Life and your practice
Metabolic Syndrome = The Perfect Storm

- Demonstration of Inflammatory metabolic risk factors that promote chronic disease
- Abdominal or truncal obesity/worsening composition
- Predisposes to Physical inactivity/disability
- “The rule of the Artery is Supreme”
Metabolic Syndrome Criteria

Any three of the following five criteria:

- Obesity (waist)
  - >40 inches in men
  - >35 inches in women
- High-density lipoprotein cholesterol
  - <40 mg/dl in men
  - <50 mg/dl in women
- Triglycerides
  - >150 mg/dl
- Blood pressure (BP)
  - >130 mm Hg systolic BP
  - >85 mm Hg diastolic BP
- Fasting blood glucose
  - >100 mg/dl

Measuring inflammatory markers and baseline

- Insulin-fasting
- Hs-CRP
- Ferritin
- Blood glucose
- Lipids
- Vitamin -D
- Blood pressure
- Homocysteine
- HgA1c
- Cortisol
- Magnesium
- CMP
- CBC
- Body Composition
- Hormones
The shape of things to come

International Diabetes Federation Definition:
Abdominal obesity plus two other components: elevated BP, low HDL, elevated TG, or impaired fasting glucose
Chronic inflammation - Metabolic Syndrome

- Metabolic Syndrome is common in many chronic conditions:
  - Heart disease
  - Diabetes
  - Hypertension
  - Obesity
  - Sarcopenia
  - Depression
  - Chronic fatigue

DANGER
INSULIN RESISTANCE
The Road to chronic disease
The perfect storm

Healthy Body Composition

Metabolic Syndrome with Altered Body Composition
- Central Body Obesity
- Insulin Resistance
- Altered Body Composition

Metabolic Syndrome with Cardiovascular Risk Factors
- Elevated Cholesterol
- Increased Triglycerides
- Hypertension

Low Energy

Heart Attack, Stroke

Chronic Disease
Statistics of concern

- 60-65% of total population in US either overweight or obese
- 1/3 of general population obese
- Type A- suffer more from heart disease, hypertension, and diabetes than general public
- Over 30% of Type A overindulge in alcohol compared to 10% of general population
Statistics of concern

- In 1991, only four states reported obesity rates greater than 10%.
- By 2002, all 50 states passed the above figure.
- Now, more than 20% in every state (except Colorado) are obese.
- Nationally, 2 out of every 5 Americans are obese compared to 2 out of every 28 French and 2 out of every 100 Japanese.
What caused this trend?

- Stress
- Fatigue
- Misinformation
- Poor nutrition (Standard American Diet - SAD)
- Inactivity - sedentary lives
- Priority misappropriation
- Environmental adaptation
- FRAUD
Being awake 17-19 hours = BAC of 0.05

Being awake 24 hours = BAC of 0.10
Physician/Clinician statistics

- In the U.S., suicide deaths are 250 to 400 percent higher among female physicians when compared to females in other professions.

- Among male physicians, death by suicide is 70 percent higher when compared to males in other professions.

- Depression is at least as common in the medical profession as in the general population.

- Depression is even more common in medical students and residents, with 15-30% of them screening positive for depressive symptoms.
A look to the INSIDE
Drugs, drugs and more drugs
MEDICATION

- Package insert
- All are adjunct therapy to nutrition and exercise
- LIFESTYLE EVALUATION
There are drug to drug Interactions.
There are no food to food interactions. There are food to food reactions

In every medicine there is a little bit of poison
The perfect storm
The perfect storm
What makes the most substantial change?

- Nutrition - 85% of long term outcome
- Exercise - More powerful than insulin in lowering overall average blood sugars.
- Rest
- Spiritual/Emotional
- Intellectual
What about your diet and exercise?
Which is more important?
Which is harder to control?

HOW CAN WE LEAD IF WE ARE NOT ON BOARD?
Fad diets or ‘quick fix’ diet are dangerous!!

Size of 5 lbs. fat vs. 5 lbs. muscle

The goal should be a complete lifestyle change, not a quick weight/size reduction

Positive Body Composition Change (BCC)
A healthy diet is full of complex, unrefined carbohydrates from whole foods.
Low-Glycemic Foods Cause a Healthy Insulin Response

Healthy Function:
Complex, unrefined carbohydrates from whole foods are absorbed more slowly through the intestine causing the release of appropriate, healthy levels of insulin from the pancreas.

Healthy Insulin Release:
The pancreas produces insulin on an “as needed basis.”
Healthy Insulin Function

Healthy Cell:
A strong insulin signal directs the sugar transport channel vesicle to fuse with the cell membrane, facilitating sugar transport into the cell.
Impact of Unhealthy Diet

Unhealthy Function:
A diet full of refined carbohydrates and sugars
Response to Messages of Poor Health:
1. Trigger (message) is translated to keep GSK activated
2. Without modulation GSK ultimately leads to poor glucose utilization
3. GSK also triggers NF-kappa B, initiating the inflammatory cascade
Poor Food Choices Cause a Poor Genetic Response

- Sugars are absorbed more rapidly through the intestines
- Trigger the release of excess, unhealthy levels of insulin from the pancreas
Sugars Causing Excess Insulin Production

Unhealthy Cell:
A diminished insulin signal is unable to direct the sugar transport channel vesicles to fuse with the cell membrane, reducing sugar transport into the cell.

Associated with NF-Kappa B and altered fat metabolism

- Channels are not being fused to the cell membrane
- Sugars are not being absorbed
- Altered gene expression reduces fat and sugar utilization by the mitochondrion
Impaired Insulin Function Impacts the Body
The Role of Lipids and Inflammatory Signaling in Insulin Resistance

Effects on Peripheral Tissues:
1. Fat storage due to adipocyte signaling
2. Cells become subject to inflammatory substances
3. Cells become insulin resistant

Response to Messages of Poor Health:
1. Impaired insulin signaling
2. Poor glucose utilization/glycogen storage
3. GSK Active
4. Fat cell swells, creates adipocytes to signal to peripheral tissues to store fat, and creates inflammatory substances

Insulin Resistance → Liver → Insulin Resistance

Pancreas

Adipocyte Tissue

Glucose Utilization

Skeletal Muscle

Glucose = Insulin
G = Glucose
Food is Cellular Information
DOCTOR AS ...... 

TEACHER

“Physician for a REASON”

Primum non Nocere

Autonomy of the Patient?
Change the weight focus

- BMI - Tall/muscular
- What about composition?
- Percent body fat
- Lean mass
- Loss over time
- WANT GAIN or maintain
- Reevaluate biomarker of metabolic disease
LISTENING TO THE BIOMARKERS OF MEASURE

- Insulin-fasting
- Hs-CRP
- Ferritin
- Blood glucose
- Lipids
- Vitamin -D
- BLOOD PRESSURE
- HgA1c
- Cortisol
- Magnesium
- CMP
- CBC
- Body Composition
Challenges

Time
Job
Motivation
Family
Bad habits
Lack of healthy boundaries
1440 minutes per day

Sometimes saying ‘yes’ to others is saying ‘no’ to yourself

“Food and activity”
AGONY
Not All Pain Is Gain.
Physical Activity Calms Your Emotions

- Activity is the best anti-depressant
- Activity metabolizes adrenaline - STRESS
- HEART and BONE health
- Builds lean mass
The “eating” pyramid:
The effects of insulin at night...
Nutrition guidelines

- Think of your body like a car engine...
  - BMR to evaluate fuel need is important.
    - Meal frequency becomes personal preference.

- Composition of meals:
  - 25-40% Carbohydrates
  - 25-30% Fats
  - 35-45% Proteins (ratios of all can vary)

- Consider Paleo or Mediterranean eating styles?
Emotional Health

Fact: We are often hyper-alert (to survive)

Emotional breakdowns are all too common.

- We are generally Type A personalities
- Sometimes, we are Type H

Every action has an equal and opposite reaction

We are rarely living ‘between the lines’
Intellectual Health

• Inundate your mind with positive and constructive things/thoughts (monitor self-talk)

• Stimulate learning

• Never think you have it ALL ‘figured out’ – cynicism

• Read

• Take an Educational Course

• Learn a new language

Lack of ‘brain exercise’ can cause the brain to become weak
Spiritual Health

- MEDITATE
- PRAY
- PRACTICE INTROSPECTION
- TIME ALONE
- PRACTICING MINDFULNESS
90 minutes a day EVALUATION

- Emotional
- Spiritual
- Intellectual
- Physical
The Pursuit of Wholeness

- Physical: sustained physical activity a Day  
  taking time to prepare and eat two veggies/day  
  go to bed earlier for increased rest  
  10 minutes  
  10 minutes  
  30 minutes

- Emotional: Write in a personal journal  
  10 minutes

- Intellectual: Take a daily “mini vacation”  
  In a world of your imagination  
  Read a nonfiction book (or manual)  
  5 minutes  
  10 minutes

- Spiritual: Sit in Silence/ read spiritual material  
  15 minutes

Give yourself 90 minutes
‘Shaped by our culture – we have adapted to our unhealthy environment’

- Beliefs
- Values
- Priorities
- Waistlines

Our HEALTH suffers

We Create a State of Wellness Debt

DRIVES METABOLIC SYNDROME
Will this be YOU??
Take home points to remember...

- Make good nutrition and exercise routine - part of your fabric
- Get plenty of rest
- Manage and maintain BALANCE in your life (work to eliminate wellness debt)
- Manage your time (You have 1,440 minutes in a day - it is up to YOU how to utilize them) *this is unlike your financial expenses (e.g. you can’t cut or add) You must pay yourself first!
- Diversify your interests and activities
Our greatest enemy is not the job, society, or another person. It is US.
We Are Trained To ‘Mask’ Ourselves From Ourselves & Others

This makes you your greatest threat
You need to look inside yourself and own you
Be honest with yourself
You are responsible for you
As a mature human being, I choose to take responsibility for myself and acknowledge *I Have Value*. Based upon this acknowledgement, I commit to daily prioritizing time devoted to the improvement of my life - emotionally, intellectually, spiritually, and physically. I am fully dedicated to my optimum performance, both personally and professionally, so that I may be the best possible example toward the establishment of a legacy of honor, integrity, and excellence for myself, my family, and my profession.

[www.live4e.com](http://www.live4e.com) OR [www.fmidr.com](http://www.fmidr.com)
Questions???
Mark Sherwood, ND  
www.fmidr.com  
www.live4e.com  

DRNEIL@FMIDR.COM