What Your Biometrics Tell You and What You Can Do About Them Naturally

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Scope
- If you have any concerns over your numbers, please see your primary care physician
- Many changes may be effective on their own or in combination with medication – please work with your doctor on this
- Today's focus: lifestyle and diet
- For further information: www.cdc.gov www.mayoclinic.org

BMI
- Calculation based on a person’s height and weight
- It does not consider body composition – screening tool only
- Are you pear or apple shaped?
- Standard chart does not apply to children or pregnant women

- Underweight BMI =< 18.5
- Normal BMI = 18.5-24.9
- Overweight BMI = 25-29.9
- Obese BMI =>30

Habits of People Who Successfully Lose Weight and Keep it off
- Exercise 30 min / day
- Keep a food journal
- Drink enough water daily
- Eat 5 servings of fruits & vegetables
- Sleep at least 6 hours
- Eat breakfast

Fasting Glucose
- Measures the amount of blood sugar present in a fasted state
- Measurement must be taken in a fasting state
- High blood sugar levels may damage blood vessels

- Good <100 mg/dL
- Borderline 100-125 mg/dL
- Abnormal >=126 mg/dL

Blood Pressure
- Measures pressure in arteries when your heart beats (systolic)
- Measures pressure in arteries between heart beats (diastolic)
- Both important but systolic is more significant
- Many measurements are necessary for diagnosis
- Excessive pressure may damage the blood vessels and organs in the body

- Normal Systolic <120 Diastolic <80
- Pre-hypertension 120-139 80-89
- High Stage 1 140-159 90-99
- High Stage 2 >160 <100
Triglycerides

- Must be taken in a fasted state
- A type of fat (lipid) found in the blood
- The body converts excess calories into triglycerides
- It is unclear how high triglycerides may contribute to hardening of the artery walls

Cholesterol

- A waxy substance found in blood
- Needed to build healthy cells and to make some hormones
- If levels are high, fatty deposits may develop in blood vessels and make blood flow difficult
- LDL – “bad”, delivers cholesterol to cells
- HDL – “good”, picks up excess cholesterol from cells and takes it back to the liver
- Recent evidence shows that dietary cholesterol only affects blood cholesterol levels in 1/3 of the population – and only to a limited degree.

<table>
<thead>
<tr>
<th>Total Cholesterol</th>
<th>HDL (&quot;good&quot;)</th>
<th>LDL (&quot;bad&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;200 mg/dL</td>
<td>&gt;40 mg/dL</td>
<td>&lt;100 mg/dL</td>
</tr>
<tr>
<td>LDL optimal</td>
<td>&lt;100-129 mg/dL</td>
<td></td>
</tr>
<tr>
<td>LDL near optimal</td>
<td>&gt;130 mg/dL</td>
<td></td>
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</tbody>
</table>

Sleep

- 7-8 hours is ideal
- Not getting enough increases the risk of high blood pressure, heart disease, diabetes and many other ailments
- The less people sleep, the more likely they are to be overweight

Drink Enough Water

- Half your body weight in ounces, but usually no more than a gallon
  - If 150 pounds – drink 75 ounces per day
- Water helps your body to function and detoxify
  - All cellular functions require water
  - Flushes kidneys
  - Help eliminate waste in colon
  - Supports liver function

<table>
<thead>
<tr>
<th>Dehydration Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>When you are sleep deprived, what sorts of foods do you crave?</td>
</tr>
</tbody>
</table>

Sodium/Potassium

- The balance of these two minerals is responsible for cellular water balance in the body
- Potassium is found in all fruits and vegetables

<table>
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<th>Foods with High Potassium</th>
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<tr>
<td>Those contain more potassium than bananas: beet greens, spinach, chard, beets, Brussels sprouts, broccoli, cantaloupe, tomatoes, asparagus, cabbage, carrots, fennel, summer squash, mushrooms, kale, celery, romaine, peppers, sweet potatoes, beans, lentils, winter squash, papaya</td>
</tr>
</tbody>
</table>

Vitamin D

- May affect an enzyme the kidneys make to regulate blood pressure
- Deficiency is correlated with many illnesses
- Blood test is simple – ask your doctor

What foods contain high amounts of potassium?
Symptoms of Blood Sugar Imbalance

- Crave sweets during the day
- Depend on coffee or sugar to keep yourself going in the afternoon or to get started in the morning
- Get lightheaded, shaky or irritable if meals are missed
- Eating relieves fatigue
- Poor memory/forgetful
- Occasional blurred vision
- Must have sweets after meals
- Difficulty losing weight

The Goal...

- Slow release of blood sugar from the digestion of food....
- Factors that can slow release:
  - Protein
  - Fiber 🍗
  - Fat

The Blood Sugar Roller Coaster

Sample Menu For The Day

6:30 am: Wake up time
7:00 am: 2 hard boiled eggs, 1 slice of whole grain toast, 1 tomato
10:00 am: hummus with baby carrots
12:30 pm: green salad with chicken breast, pears and avocado with vinaigrette
3:00 pm: fruit parfait (plain yogurt, handful of nuts, berries)
6:30 pm: Steak with sweet potatoes and garlic spinach
9:30 pm: Apple and cashews
10:00 pm: Bed time

Fiber

- Slows glucose release into blood.
- Helps us feel full.
- Supports healthy bowel movements – and elimination of excess cholesterol.
- Recommendation for adults is **25-35 grams/day**.
- Cooking/peeling changes content.
- Start slow if currently consuming only little.
- Increase water along with fiber.

Exercise

- Most powerful tool we have for disease prevention
- More muscle in your body causes you to burn more calories
- Muscle weighs more than fat
- 30 minutes a day is a great healthy habit
- Do not overthink it!
Fats - Healthy Sources

- **Saturated Fats**
  - Coconut oil
  - Organic butter or ghee

- **Unsaturated Fats (poly / mono)**
  - Extra virgin olive oil
  - Other cold pressed seed and nut oils stored in fridge
  - Fish oil (Omega 3)
  - Raw nuts and seeds
  - Avocados

Micronutrients

- **Vitamins**
  - Water Soluble – Vitamin C, B Vitamins
  - Fat Soluble – Vitamins A, D, E, K

- **Minerals**
  - Major Minerals – Sodium, Potassium, Calcium, Phosphorus, Sulfur, Chloride, Magnesium
  - Trace Minerals – Iron, Zinc, Copper, Manganese, Iodine, Selenium

- **Phytochemicals**
  - Plant compounds such as carotenoids, flavonoids, phytosterols, etc.

Stress

- Stress upsets hormonal balance
- Stress promotes weight gain
- Interferes with blood sugar metabolism

Alcohol

- It is a toxin which burdens the liver and other organs
- Past 1 drink/day for women and 2 drinks/day for men, negative effects may start
- At the lowest intake levels, modest benefit may exist on cholesterol levels

Smoking

- Causes oxidative damage and inflammation throughout the body – including the blood vessels
- Increases the risk of just about any ailment
- Within 1 year of quitting, your risk of heart disease is half that of a smoker
- If you do smoke, take antioxidants to counter some of the damage