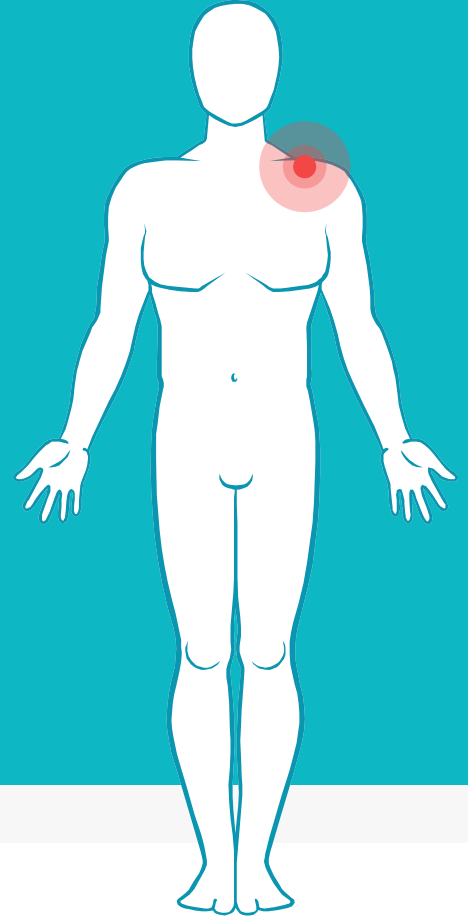


# Hormones and Weight Loss



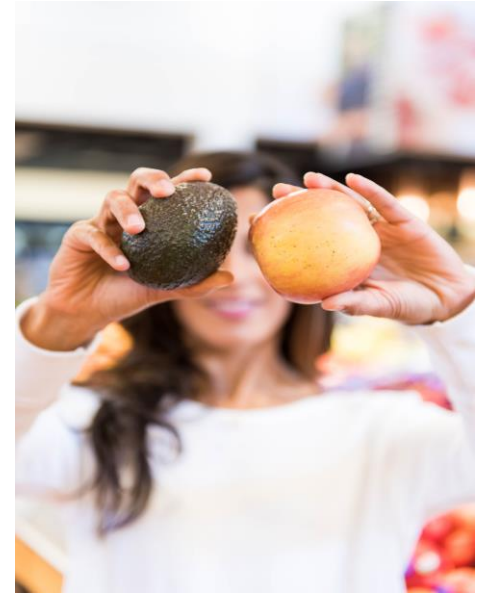
Anar Allidina  
NUTRITION



ALI 472: Hormone Balance – Nov 3, 2018

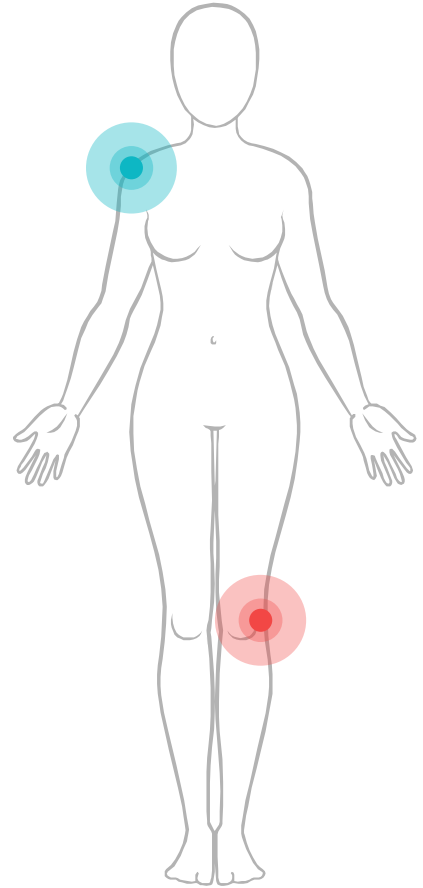
# About Anar Allidina Nutrition

- ▶ Registered Dietitian with over 10 years experience with a Masters in Public Health
- ▶ Certified Diabetes Educator
- ▶ Clinical Dietitian at Medcan Clinic in Toronto
- ▶ Private Practice Dietitian in Richmond Hill with a focus on:
  - Diabetes, Heart Disease, Family Nutrition and Weight loss
  - Recipe and menu development
  - Product review and recommendations
  - Corporate wellness
  - Cooking classes and workshops



# Objectives

- ▶ What are hormones?
- ▶ Explain the key hormones needed for successful weight loss
- ▶ How does an hormone imbalance occur
- ▶ How do we know when our hormones are unbalanced
- ▶ Lifestyle/diet modifications we can implement to correct our hormones



# Hormones – What is the Deal?

- ▶ Hormones play a key role in the body's chemistry, carrying messages between cells and organs.
- ▶ Hormones affect our body's functions, from growth, sexual development, mood, sleep, stress and how our body breaks down food.
- ▶ When in balance, hormones help the body thrive.
- ▶ Sometimes hormones can be low or too high – this can happen at any age at any time and may cause serious health problems.

# Hormones and Weight Loss

- ▶ Hormones control metabolism which directly impacts the amount of fat you gain or lose.
- ▶ In other words, burning fat and achieving successful weight loss is in fact partly a hormonal event.
- ▶ Hormones change throughout the life cycle (puberty, adulthood, menopause)
- ▶ We need to have a better understanding how to adapt with life changes to keep our hormones in balance.

# Why is Weight Loss So Hard?

- ▶ Diets don't work for many people, because they don't address the hormonal root cause
- ▶ Hormones dictate what our body does with food
- ▶ With unbalanced hormones you are in a state of inflammation, your metabolism is not efficient and you store fat

## Are My Hormones are Unbalanced?

- ▶ Excessive sugar cravings
- ▶ Extra weight in your midsection
- ▶ Moodiness
- ▶ Lack of sleep
- ▶ Feeling overwhelmed and stressed (never ending to do list)

# 4 Hormones Crucial for Weight Loss

1. Estrogen
2. Cortisol
3. Insulin
4. Leptin



# 1. ESTROGEN

This hormone is what makes us uniquely women

# The Role of Estrogen

- ▶ Steroid hormone responsible for female body (breast, uterus, brain) and reproduction.
- ▶ Helps maintain stable body temp, regulating chol levels, and bone density.
- ▶ Negative effects occur with aging and promoting breast and uterine cancer.

# ESTROGEN HORMONE LEVEL

Estrogen Level 

Estrogen Deficiency 

AGE 20

AGE 30

AGE 35

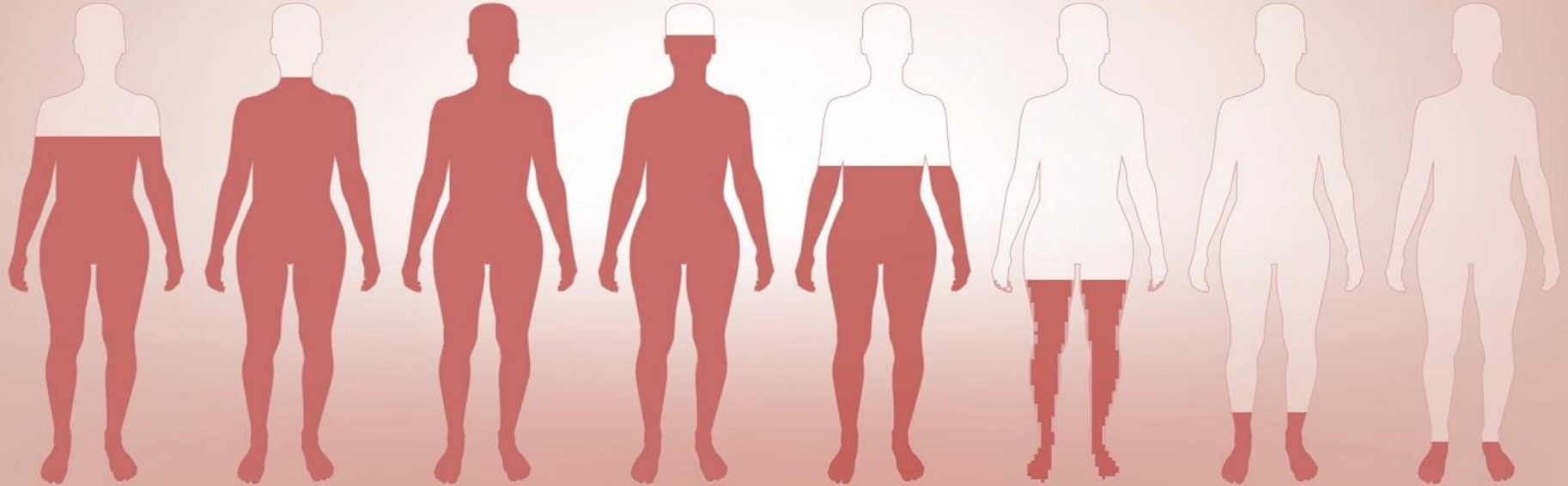
AGE 40

AGE 50

AGE 60

AGE 70

AGE 80



← MENOPAUSE →

# Estrogen and Progesterone

- ▶ Ying and Yang
- ▶ These 2 hormones explains a women's life
- ▶ Progesterone – Pregnancy hormone
- ▶ Progesterone uses fat for fuel, relieves anxiety
- ▶ When these 2 hormones are in balance you feel amazing!

# Estrogen Dominance

- ▶ During menopause, levels of all your hormones tend decrease, including estrogen and progesterone. Your doctor may have told you that your estrogen levels are decreasing – so how does estrogen dominance can cause weight gain in menopause?
- ▶ When estrogen levels decrease during menopause, if your progesterone levels are decreasing more than your estrogen, you can still have estrogen *dominance*.
- ▶ Estrogen dominance is really about the **ratio** of estrogen to progesterone—if you have too much estrogen compared to your progesterone (no matter how little it is) you can gain weight and store more fat around your mid section.

# Estrogen Dominance – Causes

- ▶ Another factor contributing to estrogen dominance is exposure to environmental estrogens which are estrogen-like chemicals in our environment.
- ▶ Known as **xenoestrogens** - mimic the functions of our natural estrogens. When they enter our body, they attach themselves to our cells' receptors, taking over the natural estrogen functions to control growth and development
  - ▶ Pesticides,
  - ▶ Hormones in animal products
  - ▶ Birth control
  - ▶ Artificial ingredients/processed foods
  - ▶ Skincare products (deodorant, scented products)
  - ▶ Plastics—all known as endocrine disruptors

# SYMPTOMS OF ESTROGEN DOMINANCE

15



Headaches

Hair Loss

Foggy thinking

Irritability

Memory loss

Mood swings

Thyroid dysfunction mimicking hypothyroidism

Breast cancer

Acceleration of the aging process

Fat gain, particularly around the abdomen, hips and thighs

Uterine cancer

Infertility

Uterine fibroids

Irregular menstrual periods

Polycystic ovaries

PMS

Depression with anxiety or agitation

Premenopausal bone loss

Osteoporosis

Insomnia

Increased blood clotting

Water retention & bloating

Fatigue

*AllNaturalIdeas.com*

# How to Balance Estrogen For Weight Loss

- ▶ Reduce red meat intake – more plant based foods!
- ▶ Careful of beauty products, cleaning products and plastics
- ▶ Eliminate excess sugars and processed food
- ▶ Exercise daily to promote detox
- ▶ **FIBRE!** 1 lb of veggies per day- goal of 35-45 grams of fibre daily





*Split Peas*

# BEST FIBER-RICH FOODS

YOU SHOULD EAT



*Lima Beans*



*Lentils*



*Artichoke*



*Avocados*



*Raspberries*



*Chia Seeds*



*Quinoa*

**Top10**  
Home Remedies

To explore more, visit

[www.Top10HomeRemedies.com](http://www.Top10HomeRemedies.com)



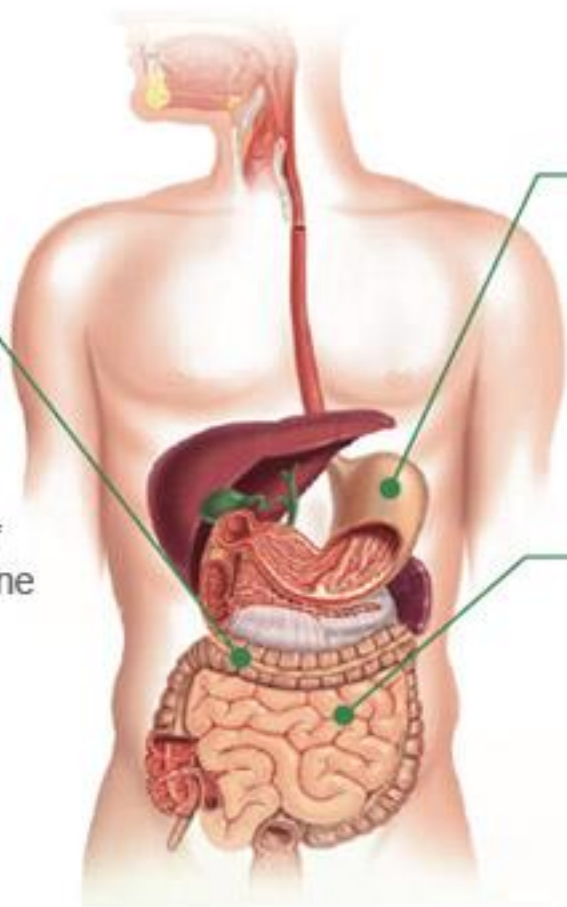
*Oatmeal*



*Almonds*

## Colon

- Adds bulk to stool, speeds waste removal, fermented by healthy bacteria
- Relieves constipation, presents reabsorption of toxin, strengthens immune system



## Stomach

- Adds bulk and fullness, delays stomach emptying
- Aids in weight loss

## Small intestine

- Slows carbohydrate absorption, binds to bile acids (made from cholesterol)
- Stabilises blood sugar, reduces blood cholesterol

# 2. CORTISOL

Cortisol regulates your body's response to stressful situations

# What Does Cortisol Do?

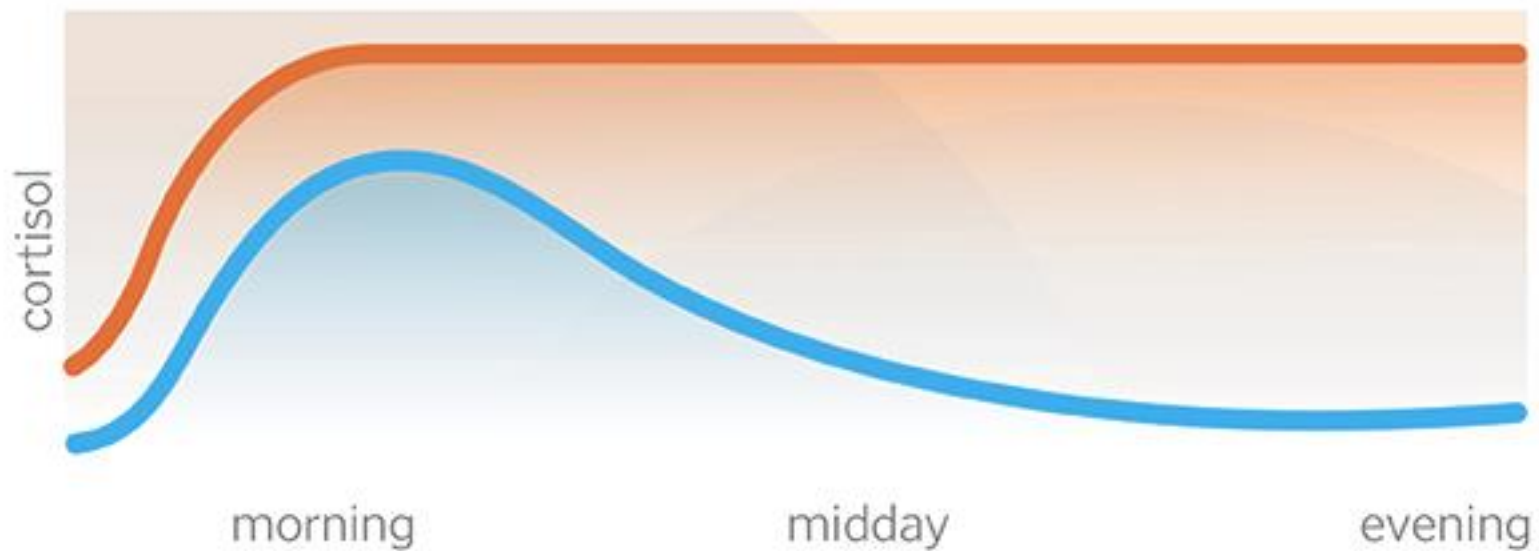
- ▶ Cortisol is a steroid hormones and is made in the adrenal glands. Responsible in “Fight or Flight” situations
- ▶ Cortisol can help control blood sugar levels, regulate metabolism, help reduce inflammation, and assist with memory and helps control blood pressure.
- ▶ In women, cortisol also supports the developing fetus during pregnancy.
- ▶ When cortisol is present the body shuts down other functions in the body such as **digestion and reproduction**

# What Happens With Too Much Cortisol

- ▶ Most of us are stressed a lot – especially women, caring for family needs, working and managing household, multi-tasking, smartphones
- ▶ Chronic stress and elevated cortisol levels also increase risk for depression, mental illness, and lower life expectancy.
- ▶ High and prolonged stress results in decrease immune function, memory loss, bone density and weight gain
- ▶ High cortisol is **directly related to body fat** – cortisol stimulates appetite
- ▶ 4x more cortisol receptors in our abdominal fat than any other fat

## KEY

- irregular curve
- normal curve



# How to Reduce Cortisol

**1. Sleep** – aim for quality and duration, limit screen time at least 30 min before bed. Goal is to have 7-8 hours of sleep a night

- Blackout shades
- Cool temperature
- Sound machine/ear plugs
- Magnesium supplements

**2. Caffeine** - Avoid caffeine in the evening or wean yourself off if you have too much. Coffee can increase cortisol in some people who are sensitive. Wait to drink coffee after you have been awake for an hour.

**3. Mindfulness/Spirituality** - Studies show that adults who expressed spiritual faith experienced lower cortisol levels in the face of life stressors such as illness. Prayer is also associated with reduced anxiety and depression.

# How to Reduce Cortisol

## 4. Family Relations

Relationships with friends and family can lead to happiness and to stress.

- Spend time with those you love and learn to **forgive** and manage conflict for better emotional and physical health
- Don't hold grudges

## 5. Mindfulness – Emotional Eating

Cortisol stimulates hunger. Training yourself to be aware of your thoughts, breathing, heart rate and other signs of tension helps you recognize stress when it begins. Helps gain control over emotional/stress eating.



# Lower Cortisol with Diet

## Omega 3

- Fish oil is one of the best sources of omega-3 fatty acids, which is known to reduce cortisol

## - Stay Hydrated

Dehydration increases cortisol. Water is great for hydrating while avoiding empty calories. A study in nine male runners showed that maintaining hydration during athletic training reduced cortisol levels.

## - Probiotics/Prebiotics

Probiotics are good bacteria we need in our bodies and in foods such as yogurt, sauerkraut and kimchi. Prebiotics, such as soluble fibre provide food for these bacteria. Both probiotics and prebiotics help reduce cortisol



# 3. INSULIN

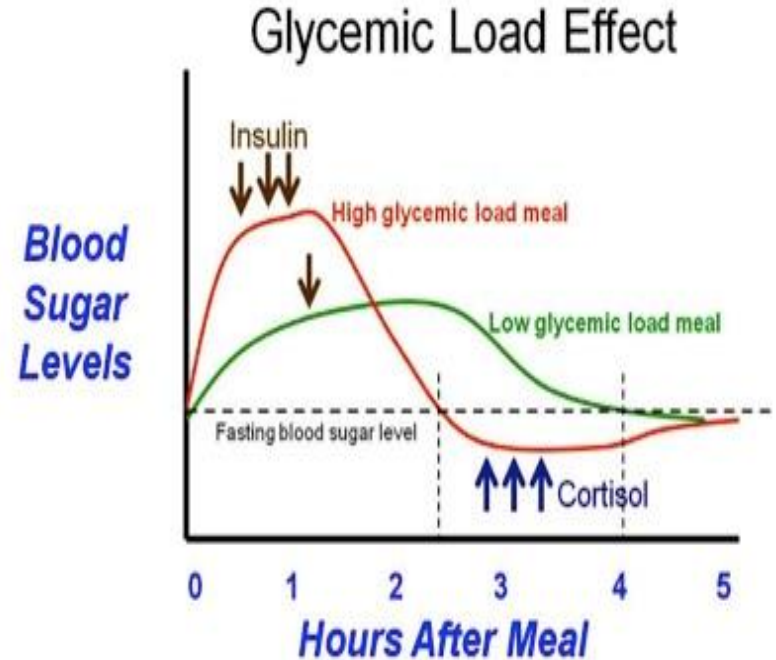
Fat Storing Hormone

## What Does Insulin Do?

- ▶ Hormone that is produced in the pancreas
- ▶ Crucial to our wellbeing and removes excess sugar from our blood
- ▶ Released when we eat foods with sugar or **any** carbohydrates
- ▶ Insulin is like a mop – it takes all the sugar to the cells of our liver, muscles and fat to help move the glucose inside to use as energy. The liver and muscles take what they need and the rest is **stored in our fat cells** for future use.

# Insulin and Carbohydrates

- ▶ When we rely on sugar for an energy boost
- ▶ Body produces too much insulin and enter a vicious cycle – this pattern increases stress and body fat
- ▶ If you are either eating too many carbs or sugar, OR you are under stress, you are likely to have too much insulin which = FAT STORING and WEIGHT GAIN



# Too Much Insulin Can Contribute to Chronic Diseases:

- ▶ Obesity
- ▶ Diabetes
- ▶ Inflammation
- ▶ Osteoporosis
- ▶ Dementia/Alzheimer's
- ▶ Hormone imbalance
- ▶ Thyroid disease
- ▶ Cancer
- ▶ Heart disease

# How Do We Control Insulin

- ▶ Watch ALL forms of sugar intake (including fruit)
- ▶ Low Glycemic foods. That means avoiding processed sugary foods and choosing slower release carbs like non-starchy vegetables, oats, brown rice, quinoa, beans, pulses, legumes.
- ▶ Low carb diet – shown to be very helpful for those with diabetes and for weight loss.
- ▶ People with health conditions characterized by insulin resistance, such as metabolic syndrome and polycystic ovary syndrome (PCOS), may experience a dramatic lowering of insulin with low carb intake.
- ▶ Low fat vs low carb insulin dropped by 50%

# Controlling Insulin With Diet

- ▶ Protein at every meal - helps to slow down the release of sugar, reducing insulin levels and keeping you full for longer, and helps reduce cravings
  - ▶ Eggs with avocado and spinach
  - ▶ Chia Pudding with berries
  - ▶ Skyr yogurt with hemp hearts and cinnamon
- ▶ Healthy fats – fat blunts the insulin response from a meal, reducing the impact of the carbs. Include healthy fats in your diet daily; oily fish (eg salmon, sardines, mackerel), avocados, coconut oil, olive oil, nuts, seeds, organic meat, and organic full fat yogurt
- ▶ Fibre – slows the absorption of sugars from the food we eat



## How Do We Control Insulin with Lifestyle

- ▶ Move more – exercise very powerful to help insulin do it's job effectively. It also helps builds muscle so that we can use up more sugar as energy. Best to do combo of aerobic and strength training.
- ▶ Manage your stress - elevated cortisol over the long term consistently produces glucose, leading to increased blood sugar levels.
- ▶ Adequate sleep 7-8 hours

# 4. LEPTIN

**The "Master" Hormone That Regulates Body Weight**

# What is Leptin?

- ▶ Leptin is a hormone that is produced by the body's fat cells
- ▶ referred to as the "satiety hormone" or the "starvation hormone."
- ▶ Leptin's primary target is in the brain, particularly an area called the hypothalamus.
- ▶ Leptin is *supposed to* tell the brain that we have enough fat stored, that we don't need to eat, and that we can burn calories at a normal rate
- ▶ Leptin's **main** role is long-term regulation of energy balance - the amount of calories we eat and burn, and how much fat we store on our bodies

# Why Diets Don't Work!

- ▶ Long-term weight loss success is the exception, NOT the rule.
- ▶ Losing weight reduces fat mass, which reduces leptin levels, but the brain doesn't necessarily reverse its leptin resistance.
- ▶ When leptin goes down, this leads to hunger, increased appetite, reduced motivation to exercise and decreased amount of calories burned at rest
- ▶ Basically, the reduced leptin makes the brain think it is starving... so it initiates all sorts of powerful mechanisms to regain that lost body fat, thinking that it is protecting us from starvation.
- ▶ This explains the Yo-Yo diet culture

# Obesity Epidemic

- ▶ Obesity is not caused by greed, laziness or a lack of willpower.
- ▶ There are strong biochemical forces at play... which are mostly driven by changes in the environment, and particularly the Western diet.
- ▶ **Everywhere** this Western diet goes, obesity and chronic disease follows.
- ▶ Not because this diet turns people into gluttons, but because it alters our biology in a way that changes our behaviour.
- ▶ Although the causes of obesity are complicated and diverse, leptin resistance is the main reason people gain weight and have such a hard time losing it

# How to Control our Leptin Levels

- ▶ SLEEP!!!
- ▶ When you don't get enough sleep, your leptin levels are lower and you don't feel as satisfied after you eat.
- ▶ Harvard studies show that sleep deprivation reduces leptin levels and actually increases your body's desire for fatty or carbohydrate-rich
- ▶ Watch simple carbohydrates – especially fructose
- ▶ Exercise
- ▶ Omega - 3

# How Do I Get My Hormones Tested??

- ▶ Saliva test or urine not blood test
- ▶ Salivary hormone testing is considered to be more accurate than blood hormone testing, since saliva reflects the level of free/active hormones. Blood level hormones are bound and inactive.
- ▶ See a ND or functional medicine practitioner

# References

- ▶ [www.hormone.org](http://www.hormone.org)
- ▶ Sara Gottfried – The Hormone Reset Diet





# THANKS!

## Any questions?

You can find me at

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- ▶ [anar@anarallidina.com](mailto:anar@anarallidina.com)