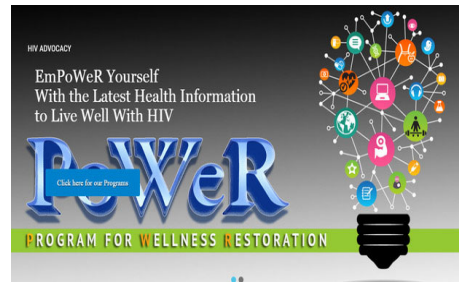


## BODY POSITIVE: STAYING FIT & HEALTHY WHILE AGING WITH HIV



Nelson Vergel,  
Activist & Author  
Founder,  
Program for Wellness Restoration



### VISION 2020:

Grace Project National Conference for Women Living with HIV  
October 24, 2020

1

The information contained in this presentation is for educational purposes only and is in no way a substitute for the advice of a qualified health care provider. Appropriate medical therapy and the use of pharmaceutical compounds should be tailored for the individual, as no two individuals are alike. The author does not recommend self-medicating with any compound, as you should consult with a qualified medical doctor who can determine your individual situation. Any use of the information presented in this presentation for personal medical therapy is done strictly at your own risk and no responsibility is implied or intended on the part of the author.

Nelson Vergel- Program for Wellness Restoration

2

## Lecture Agenda:

- Weight Gain in the New HIV Era- Review of Studies
- Preventing Heart Disease
- Reducing Visceral Fat
- Healthy Nutrition Tips
- Exercise Tips
- Weight Loss Medications
- Hormone Balance
- Sleep- The Pillar of Health
- Resources

**Power**

3

# **BODY POSITIVE: WEIGHT GAIN RELATED TO HIV MEDICATIONS**

## **VISION 2020:**

Grace Project National Conference for Women Living with HIV  
October 24, 2020

4

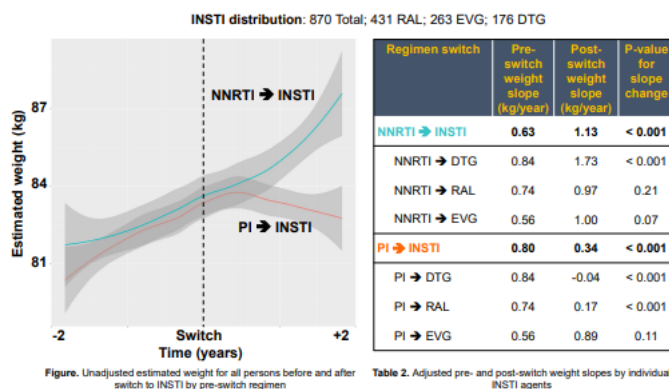
## Weight Gain in HIV: Then and Now

- 1996- 2006: Weight gain was characterized by accumulation in the visceral and cervical area (lipohypertrophy) in the boosted protease plus thymidine nucleoside era (Crixivan, Kaletra, AZT, Zerit) along with fat loss under the skin (lipoatrophy). Lipoatrophy decreased after Zerit and AZT were no longer recommended in the U.S. in 2004.
- ARV-related mitochondrial toxicity plus insulin resistance were factors identified in body changes along with inflammatory cytokines. Some genetic factors were also identified but not investigated in detail.
- The term “lipodystrophy” was later changed to “return-to-health” syndrome as strong immune reconstitution was identified as a major factor.
- The only treatment approved for the treatment of increased abdominal fat is **Egrifta SR**
- We hoped that integrase inhibitors would not cause weight gain since they are not associated with mitochondrial toxicity or insulin resistance. They were later found to cause greater weight gain than protease inhibitors in naïve patients and those switching to integrase inhibitors. This trend is most pronounced in women, blacks, and persons  $\geq 60$  yrs. of age
- We have learned that all ARVs can cause weight gain and that patient-related factors that may worsen their effect. Fortunately, disfiguring lipodystrophy is rare in patients not exposed to AZT, Zerit and older ARVs. However, many long-term survivors are still dealing with these body changes.

**Power**

5

## Weight gain after switch is influenced by initial ARV regimen



**Greater weight gain was seen after switch to integrase- based (INST) regimen from NNRTI vs. PI regimens**

**Among those switched from NNRTI- to integrase-based ART, annualized weight gain was greatest for females, non-whites older PWH, and those switched to dolutegravir (DTG) (Tivicay)**

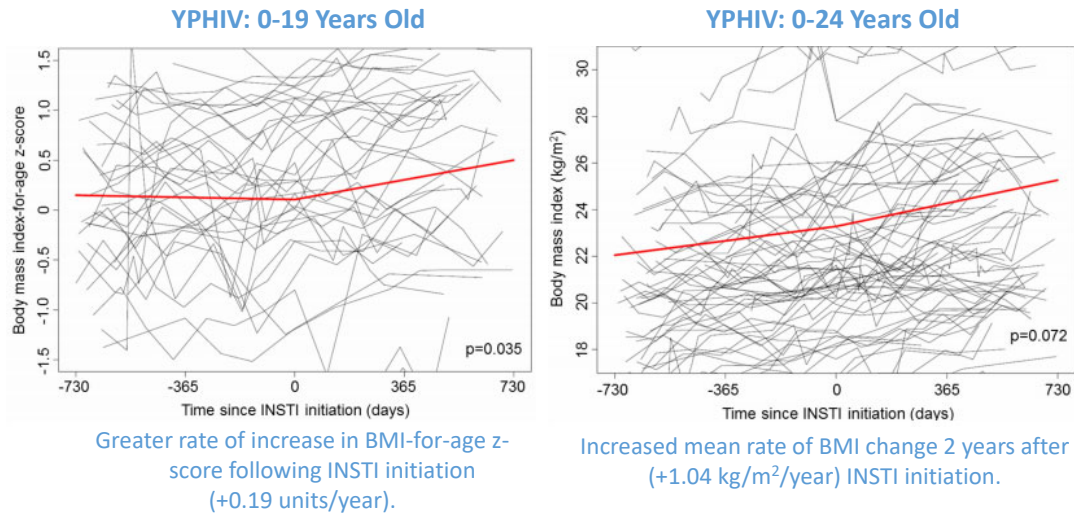
NA-ACCORD Participants with VL < 1,000 copies/mL for 2 years pre and post regimen switch

4. Koethe et al, CROI 2020, Abstract 668.

9

6

## Increases in BMI in YPHIV receiving INSTIs

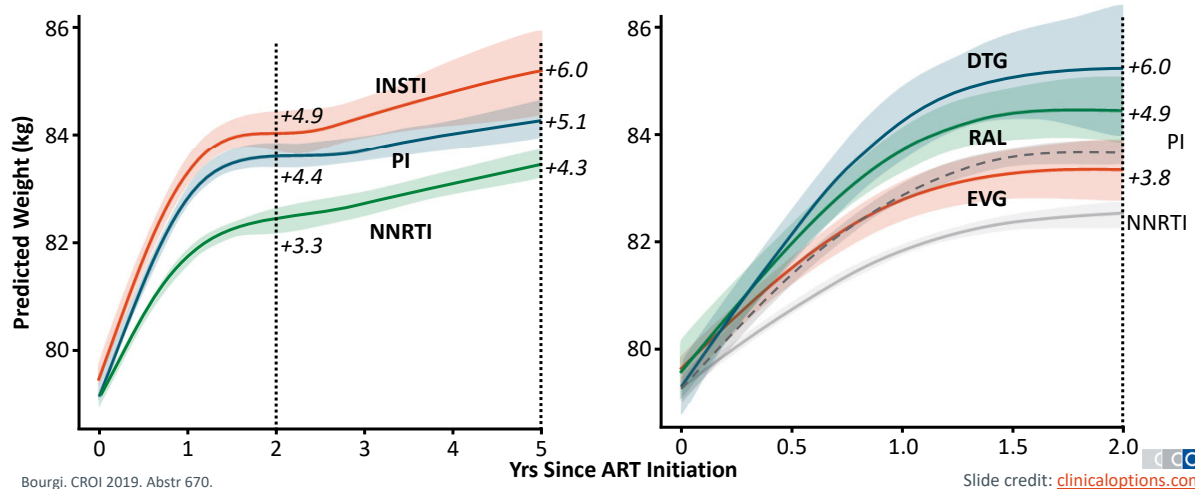


5. Dirajlal-Fargo et al, CROI 2020, Abstract 826.

7

## NA-ACCORD Study: Weight Gain Among 24,001 ART-Naive Patients Initiating Treatment

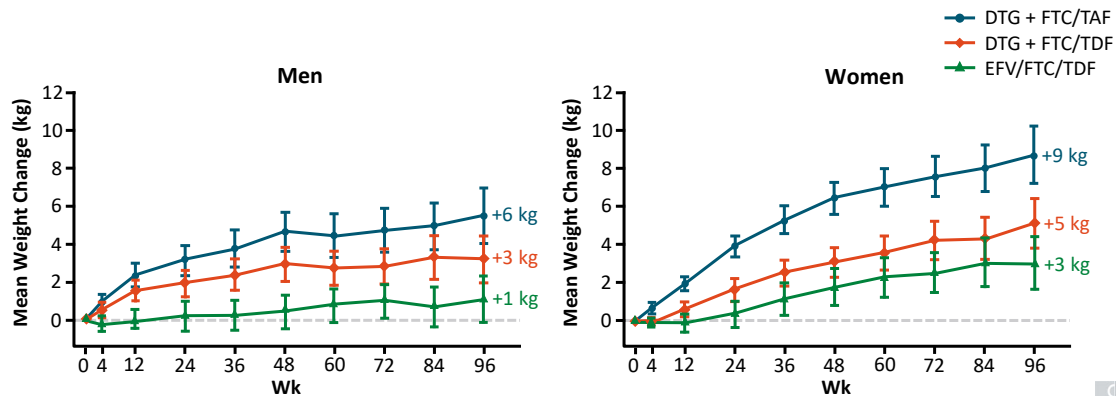
- Multivariate analysis of weight gain following ART initiation (January 2007 - December 2016)



8

## ADVANCE STUDY: Mean Weight Change by Sex and ARV

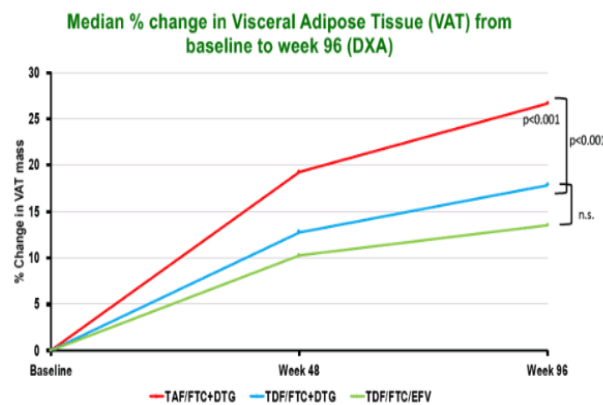
- Greater weight increase with dolutegravir (DTG) vs efavirenz (EFV), with TAF vs tenofovir (TDF); plateau in weight gain after Wk 48 observed in men but not in women
  - Same patterns observed for percentage change in weight and change in BMI category over time



9

## Visceral Fat (VAT) increases in PLWH initiating INSTIs

### ADVANCE: Weight Gain and Fat Changes through Week 96



In a subanalysis of the ADVANCE trial, **TAF/FTC+DTG led to greater rises in VAT** from baseline to Week 96 vs either comparator ( $P < 0.001$ )

3. Hill, et al, CROI 2020, Oral Abstract 81.

graph credit: [clinicaloptions.com](http://clinicaloptions.com)

43

10

## How might regimens containing INSTIs or TAF cause weight gain?

### Proposed Predictors and Mechanisms

#### INSTIs

- Interaction with **genes** associated with obesity<sup>1,6</sup>
- Induction of adipogenesis, lipogenesis, oxidative stress, fibrosis and insulin resistance, directly impacting adipocytes and adipose tissue<sup>2</sup>
- Improved GI tolerability and lack of secondary-effects of cobicistat in INSTIs not requiring boosting<sup>1,2</sup>
- Reduction in inflammatory biomarkers, and potentially catabolic processes, compared to NNRTI-based regimens<sup>1</sup>
- Potency and correlation with lower energy expenditure<sup>1</sup>

#### TAF

- TDF may exert a mild weight suppressive effect absent in TAF<sup>5</sup>
- Increases LDL cholesterol unlike TDF<sup>7</sup>
- TAF may amplify (or TDF may mitigate) the weight-gain effect of DTG<sup>5</sup>

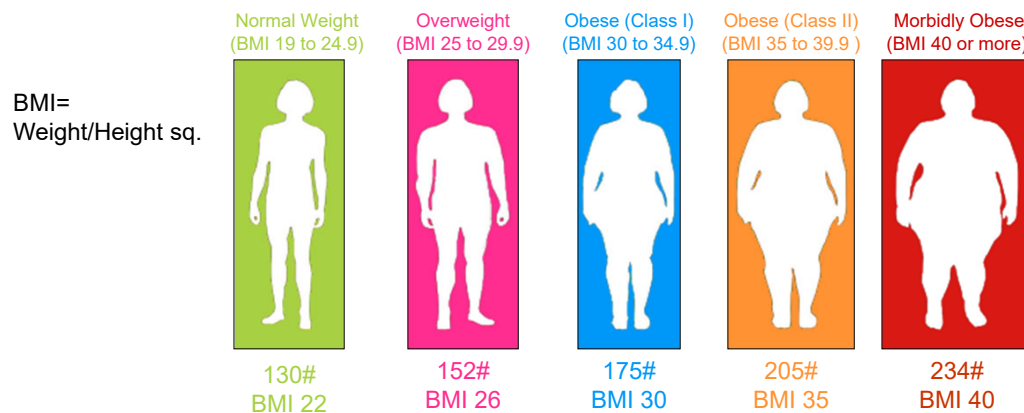
1. Bourgi, et al, CID 2019. 2. Sax, et al, CID 2019. 2. Gorwood, et al. CID 2020. 3. Cid-Silva, et al. BCPT. 2019 5. Hill, et al J Virus Erad. 2019. 6. Minami, et al. CROI 2020. Abstract 670 7. Santos, et al CID 2015

44

11

## Levels of Body Mass Index BMI

What does obesity look like? \*based on female 5' 4" tall

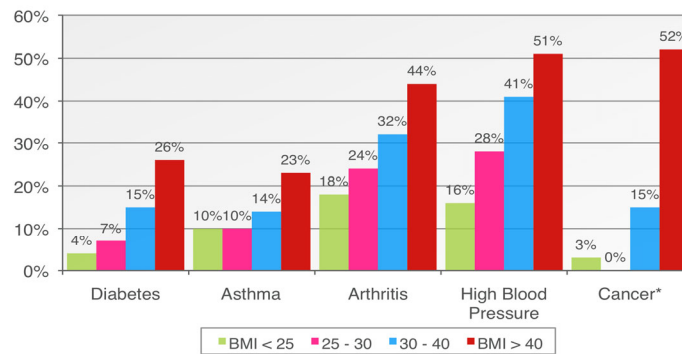


Agency for Healthcare Research and Quality. Screening for obesity in adults. Accessed June 22, 2010 from <http://www.ahrq.gov/clinic/3rduspstf/obesity/obeswh.htm>  
Dugdale DC. Obesity. MedlinePlus. Accessed June 22, 2010 from <http://www.nlm.nih.gov/medlineplus/ency/article/007297.htm>

**POWER**

12

## Prevalence of Significant Morbidities per BMI



Mokdad AH, Ford ES, Bowman BA, et al. Prevalence of obesity, diabetes, and obesity-related health risk factors, 2001. JAMA 2003;289:76."

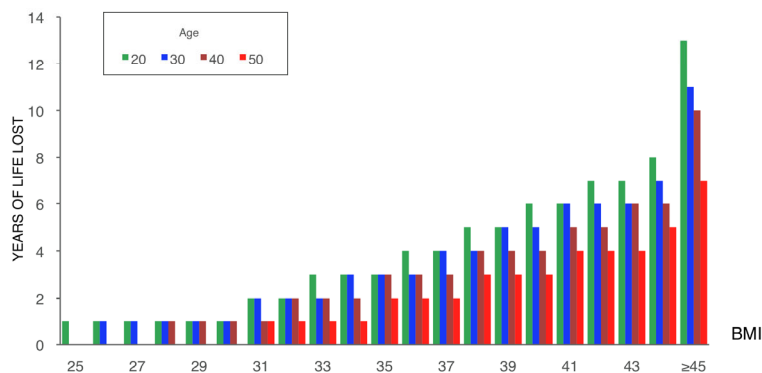
\* Increase in mortality rate from cancers of all kinds compared to lowest risk group (BMI 25-30). From Calle EE, Rodriguez C, Walker-Thurmond K, et al. Overweight, obesity and mortality from cancer in a prospectively studies cohort of US adults. New Engl J Med 2003;348:1625."

PoWeR

13

## Impact of BMI on Longevity

### Impact of Obesity on Mortality and Years of Life Lost



Graph represents years of life lost for white men.

Fontaine KR, Redden DT, et al. Years of life lost due to obesity. JAMA 2003;289:187.

PoWeR

14

## Effects of Obesity

- Diabetes
- Heart Disease
- Colon, Gastric, Breast, Pancreatic Cancer
- Osteoarthritis
- Sleep Apnea
- Hypertension
- Stroke
- Dyslipidemia
- Infertility

15

## Where are People Going for Help?

- Americans spend over 60 billion dollars a year on weight loss efforts
- Prepackaged foods
- Supplements
- Weight loss clinics
- Nutritionists
- Personal Trainers
- Pharmaceuticals
- Surgery

16



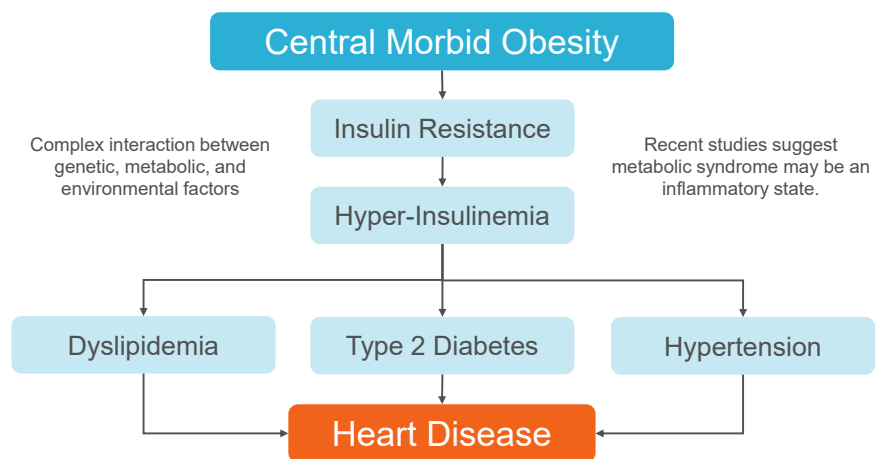
# BODY POSITIVE: PREVENTING HEART DISEASE

## VISION 2020:

Grace Project National Conference for Women Living with HIV  
October 24, 2020

17

## Metabolic Syndrome



18

## Risk Factors for Coronary Heart Disease (CHD)

(National Cholesterol  
Education Program,  
JAMA, May 2001)

- ✓ LDL >130
- ✓ Cigarette smoking
- ✓ Hypertension (blood pressure >140/90 or on BP meds)
- ✓ HDL < 40
- ✓ Family history of early CHD (male <55y.o., female <65y.o.)
- ✓ Diabetes

19

## HOW TO MINIMIZE CARDIOVASCULAR DISEASE

- Do not smoke!
- Exercise and avoid a diet rich in sugar/simple carbs
- Lose weight if you are overweight
- Manage stress. Relax!
- Manage blood pressure
- Decrease triglycerides with Omega 3 fatty acids (cold water fish oils)
- Improve HDL with Niacin 300-500 mg 3 x day. Start with lower dose to minimize "flushing" and take an aspirin 20 min before (Niaspan is the prescription grade)
- Consume Soluble Fiber (oats, etc)
- If everything else fails, use prescription lipid lowering agents (statins, fibrates, etc)
- A baby aspirin a day (81 mg)
- Talk to your doctor about lipid friendly HIV meds

20

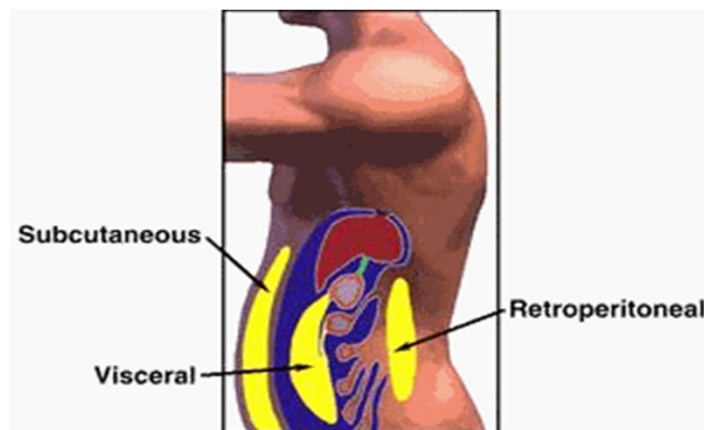
## BODY POSITIVE: REDUCING VISCERAL FAT

### VISION 2020:

Grace Project National Conference for Women Living with HIV  
October 24, 2020

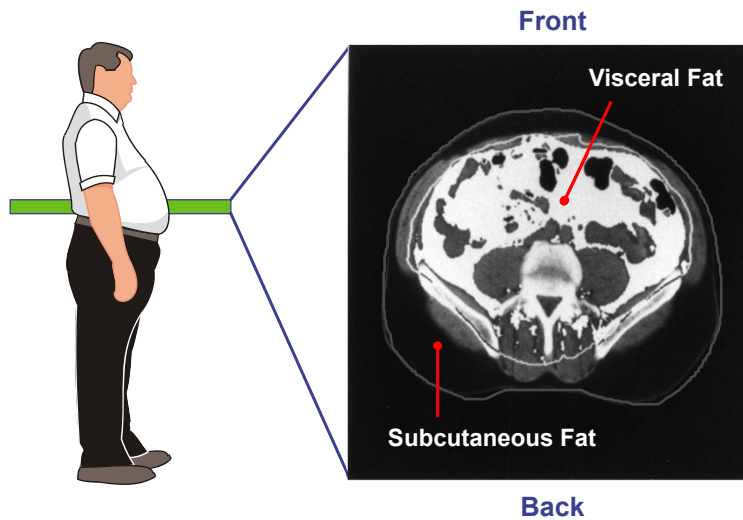
21

## Visceral Fat Accumulation



22

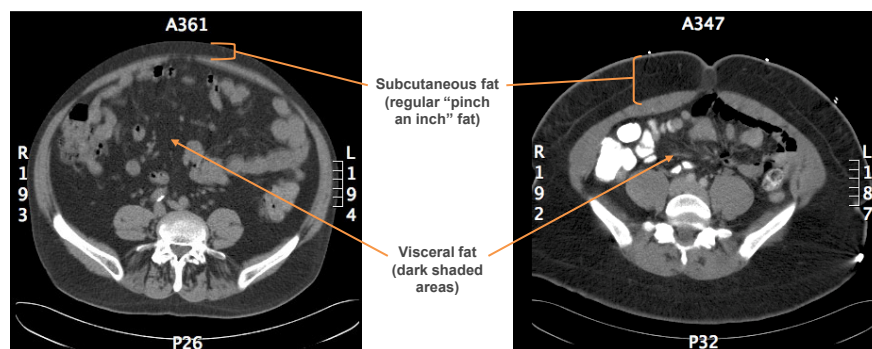
## Excess VAT as seen on a CT scan



Source: International Chair on Cardiometabolic Risk [www.myhealthywaist.org](http://www.myhealthywaist.org)

23

## Visceral Fat Vs Subcutaneous Fat



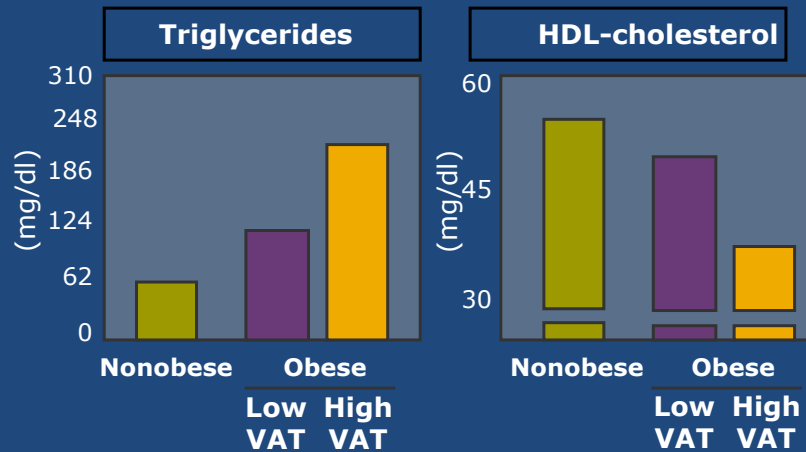
Person living with HIV  
with **visceral fat**.  
There is little subcutaneous fat  
and more visceral fat.

Person living with HIV  
with **obesity**.  
There is more subcutaneous  
fat and only a little visceral fat.

Images courtesy of D.A. Wohl

24

## High visceral fat (VAT) increases cardiovascular risk



Pouliot et al. *Diabetes*. 1992;41:826-834.

25

## Potential Interventions for Decreasing Abdominal Fat (visceral adipose tissue-VAT)

- Diet- Lower carb?- *No data available in HIV*
- Exercise- cardiovascular and resistance training- *Some pilot data with good results*
- Weight reduction.
- Anti-diabetic drug Metformin (Glucophage)- *conflicting and inconclusive data*
- Human Growth Hormone Releasing Hormone- Egrifta SR

26

## Potential health complications of HIV-related excess belly fat

- Increased risk of heart attack
- Increased risk of hardened arteries
- High blood pressure
- Cholesterol issues
  - Increase in triglycerides
  - Variable effect for LDL cholesterol
  - Decrease in HDL cholesterol
- Insulin resistance
- Diabetes

Keep in mind that reducing excess VAT may not decrease the risk of other health issues.

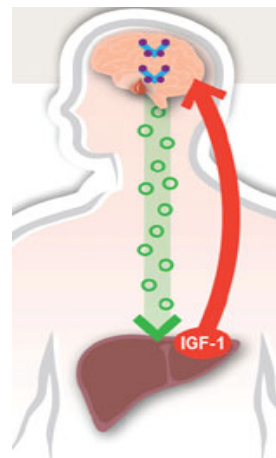
1. Guaraldi G, et al. *AIDS*. 2011;25(9):1199–1205. 2. Scherzer R, et al. *AIDS*. 2011;25(11):1405–1414.

27

## How does **EGRIFTA®** work?

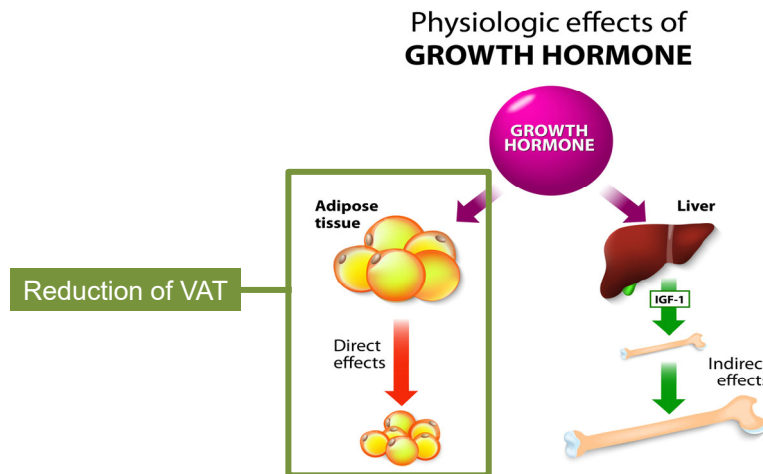
Growth hormone (GH) has a role in how fat is stored in your body and the lack of GH may increase VAT in your belly

**EGRIFTA®** may help reduce excess VAT by helping your body naturally release its own GH when needed



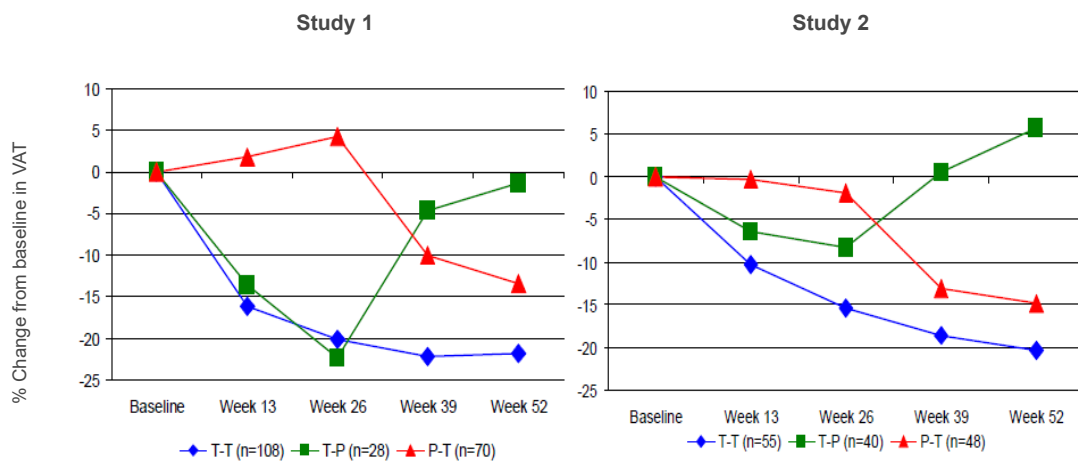
28

## What are the Physiological Effects of Growth Hormone ?



29

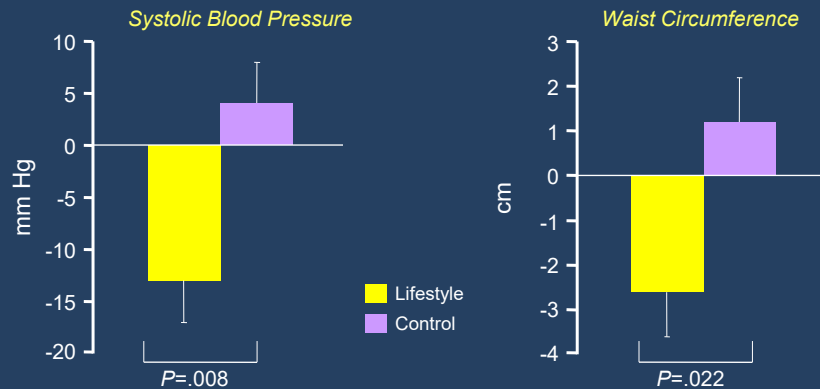
## **EGRIFTA®** (tesamorelin for injection) Percent change from baseline in VAT over time



30

## Benefits of Exercise and Dietary Changes in the Metabolic Syndrome

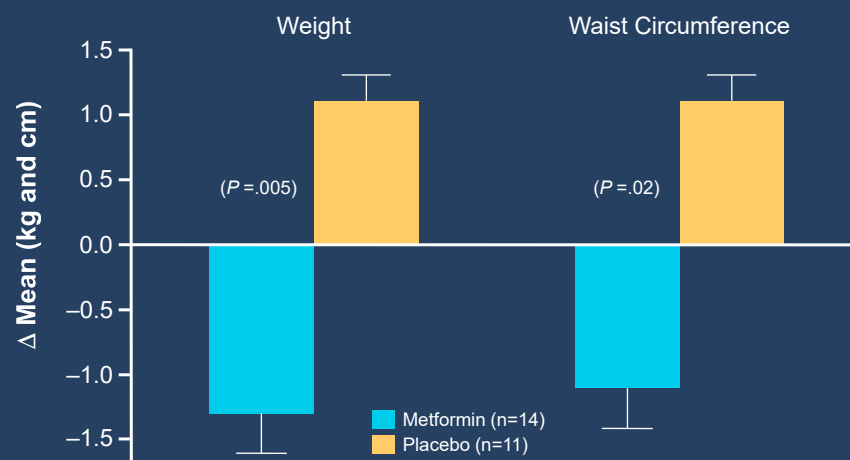
- A 6-month randomized trial in HIV-infected subjects with NCEP-defined metabolic syndrome receiving lifestyle modification (n=16) or observation (n=18)



Fitch K, et al. 8<sup>th</sup> ADRL; 2006; San Francisco. Abstract 24.

31

## Metformin Patients Lost Weight and Had Decreased Waist Circumference



Hadigan C et al. JAMA. 2000;284:472-477.

32



## Metabolic Effects of Metformin and Exercise in Treated HIV(+) Patients

Parameter	Metformin (n=14) Change (3 m)	Metformin + Exercise (n=11) Change (3 m)	P Value
Fasting Glucose(mmol/L)	-0.28	-0.56	ns
Fasting insulin (pmol/L)	0	-42	.03
Insulin AUC (pmol/L)	-9 x 10 <sup>3</sup>	-3 x 10 <sup>4</sup>	.04

Driscoll SD et al. *AIDS*. 2004;18:465-473.

33

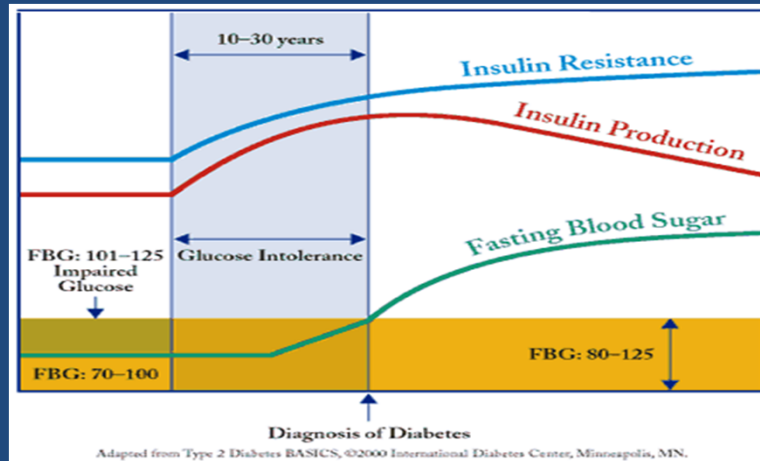
## BODY POSITIVE: HEALTHY NUTRITION

### VISION 2020:

Grace Project National Conference for Women Living with HIV  
October 24, 2020

34

## Pre-Diabetes Common in HIV+ People



FBG: Fasting Blood Glucose

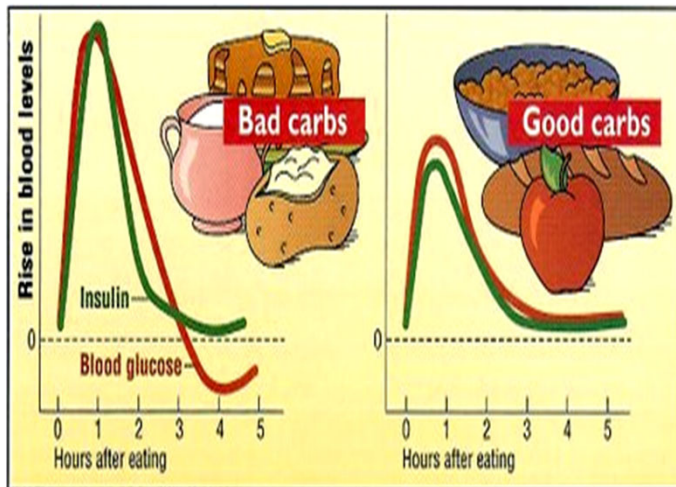
35

## The Traditional Food Pyramid



Nelson Vergel- Program for Wellness Restoration

36



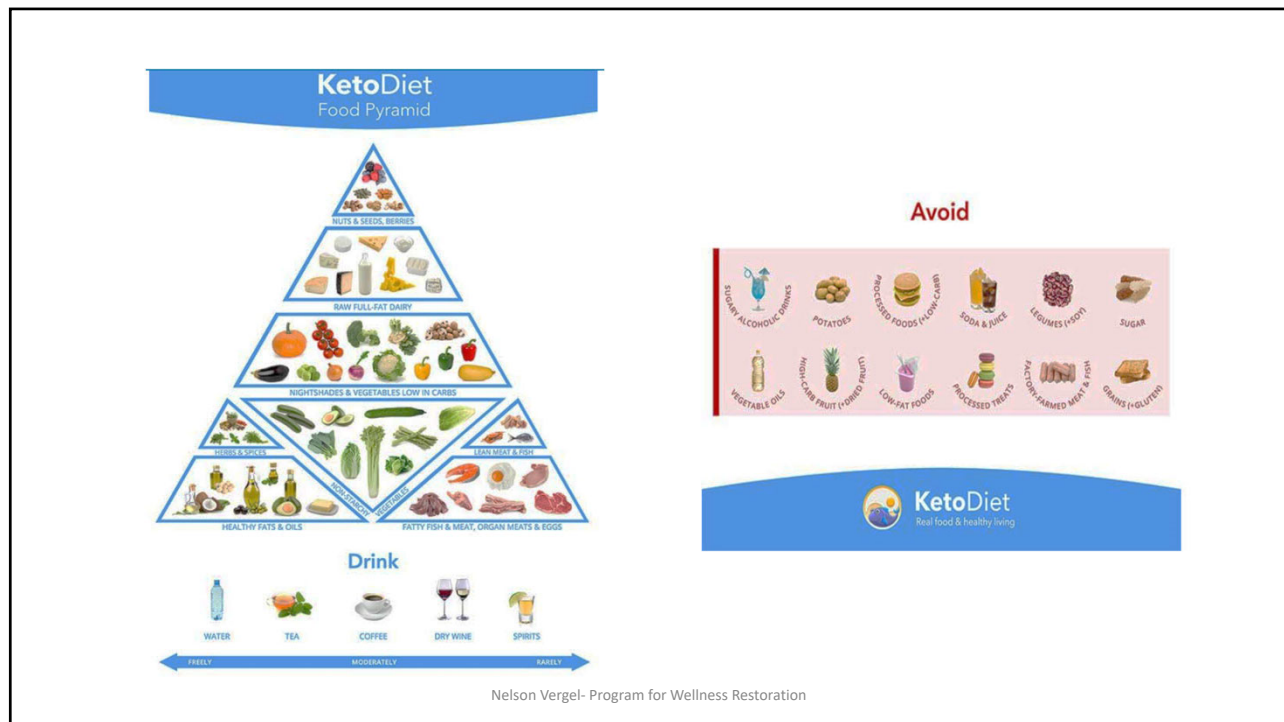
**CARBOHYDRATES ARE NOT ALL EQUAL**

37

## Mediterranean Diet Pyramid

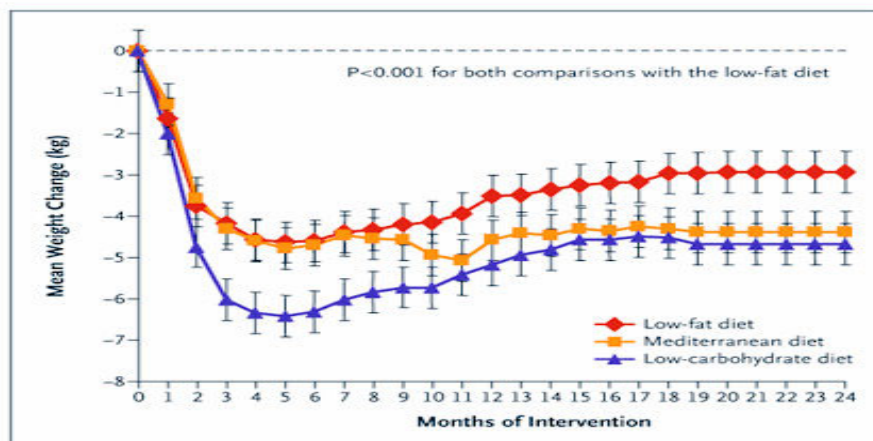


38



39

## Low- Fat vs Mediterranean vs Low-Carbohydrate Diets: Effect on Weight Loss



*The New England Journal of Medicine. July 17, 2008 vol. 359 no. 3*

40

## What Your Plate Should Look Like....

Nelson Vergel- Program for Wellness Restoration



41



## Nutritional Considerations

- Reduce fried foods and hydrogenated oils
- Eat omega-3 fish oil-rich foods- salmon, tuna, sardines or flax seed oil (alternative)
- Use monounsaturated fats: olive oil
- *Minimize sugar, fructose (sweets, sodas, foods with high fructose corn syrup )*
- Eat adequate amounts (0.7-1 gm/lb./day) of protein (fish, eggs, cottage cheese, lean meats, chicken, whey, nuts, etc.)

42

## MORE NUTRITIONAL CONSIDERATIONS

- Do not skip breakfast (keep an eye on sugar and refined flower products!)
- Try to eat several smaller meals or snacks instead of 2-3 large ones
- Eat more almonds, walnuts, pecans and pistachios (good cholesterol lowering fats)
- Eat fruits and vegetables of all colors ( varied antioxidant profile)
- Minimize caffeine after 2 pm
- Spend most of your money at the perimeter of the grocery store

43

## GROCERY SHOPPING LIST

- Almonds and other nuts
- Beans and other legumes
- Spinach and other green leafy vegetables
- Low fat dairy, yogurt
- Whey protein
- Oatmeal
- Eggs
- Lean meats, salmon, tuna, etc
- Peanut, almond , cashew butters
- Olive oil and avocados
- Raspberries and all berries. Fruits (avoid fruit juices)
- Flaxseed , pumpkin and sunflower seeds
- Sweet potatoes
- Green tea



44



## BODY POSITIVE: EXERCISE TIPS

### VISION 2020:

Grace Project National Conference for Women Living with HIV  
October 24, 2020

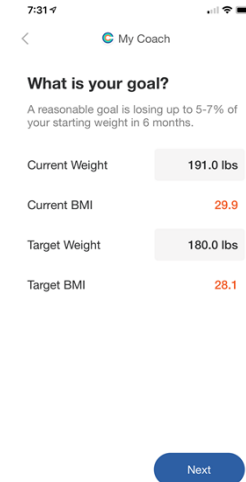
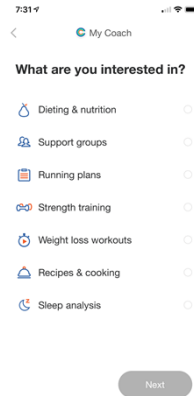
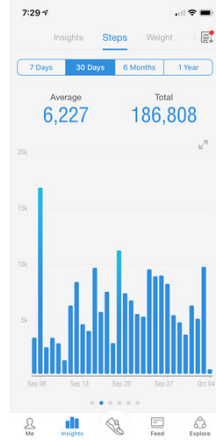
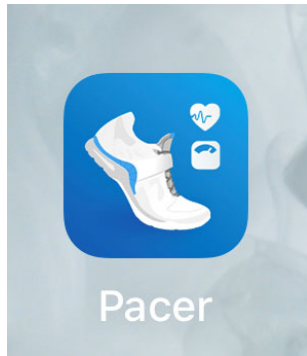
45

## Exercise: The Best Medicine

- ↓ total and abdominal fat
- improves insulin sensitivity
- improves glucose tolerance
- increases HDL cholesterol
- ↓ triglycerides and LDL
- increases muscle mass
- improves endurance
- improves strength
- improves bone density
- improves mood

46

## Nelson's Favorite Free Step Counter App (Iphone and Android): PACER



Aim at 5,000 to 10,000 steps per day

Nelson Vergel- Program for Wellness Restoration

47

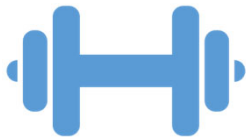


## Aerobic (Cardiovascular) Exercise

- Start with a brisk walk every day . Aim at 5,000-10,000 steps per day (Get an App)
- Concentrate in low impact or no impact exercises (e.g. Elliptical Trainers)
- Do what you enjoy (bicycling, roller skating, etc.)
- Good for burning fat, triglycerides, blood sugar, and to improve blood pressure.
- 20 - 30 minutes 3-4 times a week is enough for many people
- Cardiovascular exercise can help decrease blood pressure, LDL cholesterol, and weight. It can also help to increase HDL, mood, and bone density. It has also shown to decrease dementia risk.

48





## Progressive Resistance Exercise (PRE)

- Increases strength, bone density and firmness.
- Lift maximum weight or use machines for muscular failure (exhaustion) at 8-12 repetitions
- One-hour sessions 3 times a week
- Three sets per body part
- If no access to a gym, start with crunches, push ups, and squats at home
- For more details, visit [exrx.net](http://exrx.net)

49

## BODY POSITIVE: WEIGHT LOSS TREATMENTS

### VISION 2020:

Grace Project National Conference for Women Living with HIV  
October 24, 2020

50

## Weight Loss Medications

- Phentermine (Adipex)
- Diethylproprion (Tenuate)
- Phendimetrazine (Bontril)
- Lorcaserin (Belviq)
- Phentermine/Topiramate (Qsymia) (Discontinued in Feb 2020)
- Naltrexone/Bupropion (Contrave)



51

## Who Can Get Weight Loss Medications Prescribed?

- ✓ The US Food and Drug Administration (FDA) has approved weight loss drugs for long-term use in obese (body mass index [BMI]  $\geq 30$ ) or overweight (BMI  $\geq 27$ ) individuals with at least 1 weight-associated co-morbidity (type 2 diabetes, hypertension, hyperlipidemia).
- ✓ Body mass index is calculated as weight in kilograms divided by height in meters squared.

52

## Appetite Suppressant Side Effects

- Increase in blood pressure
- Increase in heart rate
- Dry mouth
- Constipation
- Insomnia
- Erectile dysfunction
- All are self limited

PoWeR

53

## Weight Loss Medications- Prescribing Requirements

- BMI > 28
- Cardiovascular Exam
- EKG
  - Patients aged 40+
  - History of cardiac abnormalities
  - History of atherosclerosis
- Contraindications
  - Uncontrolled hypertension
  - Renal disease
  - Coronary artery disease



54

## Weight Loss Medications

Weight-loss medication	Approved for	How it works	Common side effects	Warnings
<a href="#">Orlistat</a> NIH external link (Xenical)  Available in lower dose without prescription (Alli)	Adults and children ages 12 and older	Works in your gut to reduce the amount of fat your body absorbs from the food you eat	<ul style="list-style-type: none"> <li>•diarrhea</li> <li>•gas</li> <li>•leakage of oily stools</li> <li>•stomach pain</li> </ul>	Rare cases of severe liver injury have been reported. Avoid taking with <a href="#">cyclosporine</a> NIH external link. Take a multivitamin pill daily to make sure you get enough of certain vitamins that your body may not absorb from the food you eat.

Source: [www.niddk.nih.gov](http://www.niddk.nih.gov)

55

## Weight Loss Medications

Weight-loss medication	Approved for	How it works	Common side effects	Warnings
<a href="#">Phentermine-topiramate</a> (Qsymia)	Adults	A mix of two medications: phentermine, which lessens your appetite, and topiramate, which is used to treat seizures or migraine headaches. May make you less hungry or feel full sooner.	<ul style="list-style-type: none"> <li>•constipation</li> <li>•dizziness</li> <li>•dry mouth</li> <li>•taste changes, especially with carbonated beverages</li> <li>•tingling of your hands and feet</li> <li>•trouble sleeping</li> </ul>	Don't use if you have <a href="#">glaucoma</a> or <a href="#">hypothyroidism</a> . Tell your doctor if you have had a heart attack or stroke, abnormal heart rhythm, kidney disease, or mood problems.  MAY LEAD TO BIRTH DEFECTS. DO NOT TAKE QSYMIA IF YOU ARE PREGNANT OR PLANNING A PREGNANCY. Do not take if you are breastfeeding.

56

## Weight Loss Medications

Weight-loss medication	Approved for	How it works	Common side effects	Warnings
<u>Naltrexone-bupropion</u> (Contrave)	Adults	A mix of two medications: naltrexone, which is used to treat alcohol and drug dependence, and bupropion, which is used to treat depression or help people quit smoking. May make you feel less hungry or full sooner.	<ul style="list-style-type: none"> <li>•constipation</li> <li>•diarrhea</li> <li>•dizziness</li> <li>•dry mouth</li> <li>•headache</li> <li>•increased blood pressure</li> <li>•increased heart rate</li> <li>•insomnia</li> <li>•liver damage</li> <li>•nausea</li> <li>•vomiting</li> </ul>	<p>Do not use if you have uncontrolled high blood pressure, seizures or a history of <u>anorexia</u> or <u>bulimia nervosa</u>. Do not use if you are dependent on <u>opioid pain medications</u> or withdrawing from drugs or alcohol. Do not use if you are taking bupropion (Wellbutrin, Zyban).</p> <p>MAY INCREASE SUICIDAL THOUGHTS OR ACTIONS.</p>

57

## Weight Loss Medications

Weight-loss medication	Approved for	How it works	Common side effects	Warnings
<u>Liraglutide</u> <i>NIH external link</i> (Saxenda)  Available by injection only	Adults	May make you feel less hungry or full sooner. At a lower dose under a different name, Victoza, FDA-approved to treat type 2 diabetes.	<ul style="list-style-type: none"> <li>•nausea</li> <li>•diarrhea</li> <li>•constipation</li> <li>•abdominal pain</li> <li>•headache</li> <li>•raised pulse</li> </ul>	May increase the chance of developing <u>pancreatitis</u> . Has been found to cause a rare type of thyroid tumor in animals.
<ul style="list-style-type: none"> <li>•Other medications that curb your desire to eat include</li> <li>•phentermine</li> <li>•benzphetamine</li> <li>•diethylpropion</li> <li>•phendimetrazine</li> </ul>	Adults	<p>Increase chemicals in your brain to make you feel you are not hungry or that you are full.</p> <p><b>Note:</b> FDA-approved only for short-term use—up to 12 weeks</p>	<ul style="list-style-type: none"> <li>•dry mouth</li> <li>•constipation</li> <li>•difficulty sleeping</li> <li>•dizziness</li> <li>•feeling nervous</li> <li>•feeling restless</li> <li>•headache</li> <li>•raised blood pressure</li> <li>•raised pulse</li> </ul>	Do not use if you have heart disease, uncontrolled high blood pressure, hyperthyroidism, or glaucoma. Tell your doctor if you have severe anxiety or other mental health problems.

58

# **BODY POSITIVE: HORMONE BALANCE IN WOMEN**

## **VISION 2020:**

Grace Project National Conference for Women Living with HIV  
October 24, 2020

59

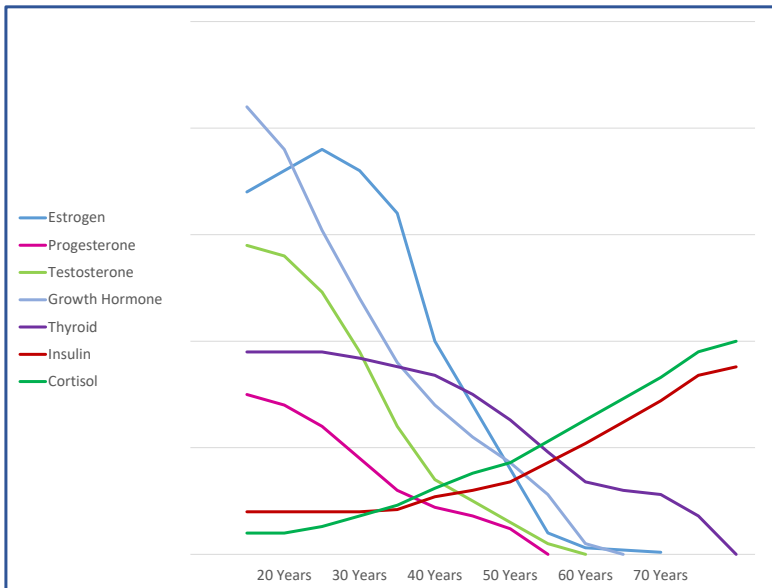
## Hormone Treatment for Women



Nelson Vergel- Program for Wellness Restoration

60

## Change of Hormones as We Age

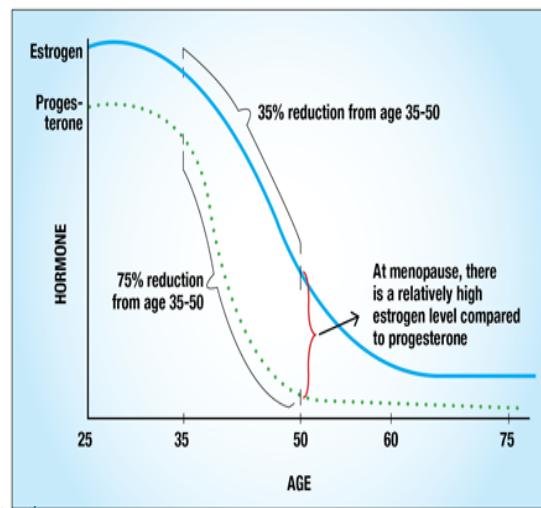
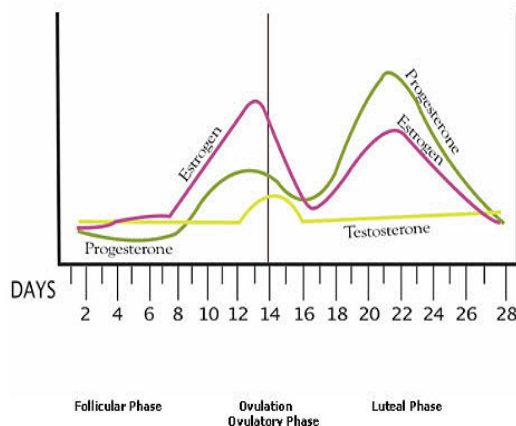


Nelson Vergel- Program for Wellness Restoration

61

## Hormone Levels Pre and Post Menopause

### Menstrual Cycle




Nelson Vergel- Program for Wellness Restoration

62

**Symptoms related to hormone deficiency during postmenopause include:**

Estrogen	Progesterone	Testosterone
• Headaches	• Muscle weakness	• Low libido
• Fatigue	• Irregular heartbeat	• Decreased sexual desire
• Hot flashes	• Vaginal infections	• Low mood
• Joint pain	• Mood swings	• Lack of energy
• Mood swings	• Anxiety	
• Memory lapses	• Headaches	



Nelson Vergel- Program for Wellness Restoration

63

## Menopausal Hormone Therapy Is Associated With Reduced Total and Visceral Fat

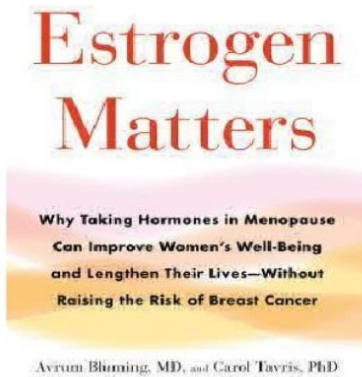
- A study of more than 1,000 postmenopausal women, ages 50 to 80, found that those who were currently taking hormones had significantly lower levels of abdominal fat than women who had never used them.
- The study, published in the Journal of Clinical Endocrinology and Metabolism, analyzed data from a large, ongoing study of heart disease in Switzerland called the OsteoLaus Cohort. In addition to asking women about their use of hormone replacement, the study measured body fat in a unique way.
- Instead of using height and weight to establish body mass index, each woman underwent a dual-energy bone x-ray (DEXA) to determine her level of body fat.
- However, the study found that the beneficial effects on tummy fat didn't last. Once hormone replacement stopped, the women rapidly regained their abdominal fat.

*The Journal of Clinical Endocrinology & Metabolism, Volume 103, Issue 5, May 2018, Pages 1948–1957*

64



## Estrogen Matters: Why Taking Hormones in Menopause Can Improve Women's Well-Being and Lengthen Their Lives -- Without Raising the Risk of Breast Cancer

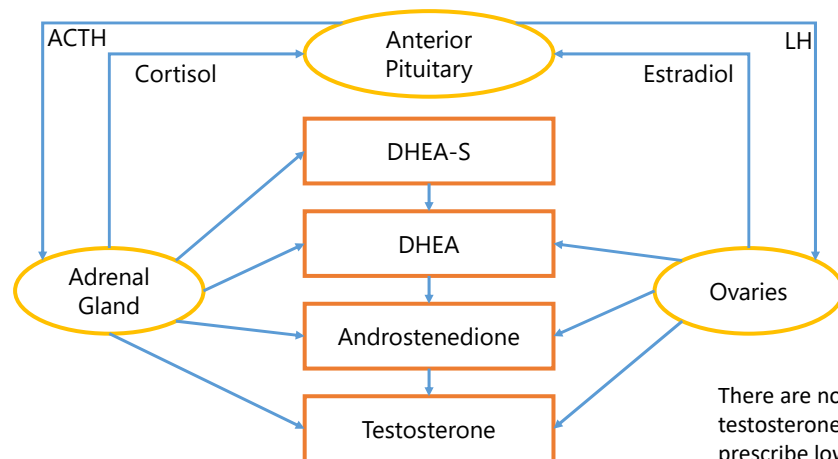


A compelling defense of hormone replacement therapy, exposing the faulty science behind its fall from prominence and empowering women to make informed decisions about their health. For years, hormone replacement therapy (HRT) was hailed as a miracle. Study after study showed that HRT, if initiated at the onset of menopause, could ease symptoms ranging from hot flashes to memory loss; reduce the risk of heart disease, Alzheimer's, osteoporosis, and some cancers; and even extend a woman's overall life expectancy. But when a large study by the Women's Health Initiative announced results showing an uptick in breast cancer among women taking HRT, the winds shifted abruptly, and HRT, officially deemed a carcinogen, was abandoned. Now, sixteen years after HRT was left for dead, Dr. Bluming, a medical oncologist, and Dr. Tavris, a social psychologist, track its strange history and present a compelling case for its resurrection. They investigate what led the public -- and much of the medical establishment -- to accept the Women's Health Initiative's often exaggerated claims, while also providing a fuller picture of the science that supports HRT. A sobering and revelatory read, *Estrogen Matters* sets the record straight on this beneficial treatment and provides an empowering path to wellness for women everywhere.

Available on Amazon.com

65

## Testosterone Production in Women



Buster JE, et al. In: Lobo RA, ed. *Treatment of the Postmenopausal Woman: Basic and Clinical Aspects*. 2nd edition. Philadelphia, Pa: Lippincott, Williams & Wilkins; 1999:142.

Nelson Vergel- Program for Wellness Restoration

There are no FDA approved testosterone products. Doctors prescribe low concentration T creams for women from compounding pharmacies

66

## Signs and Symptoms of Testosterone Deficiency in Women

### Signs

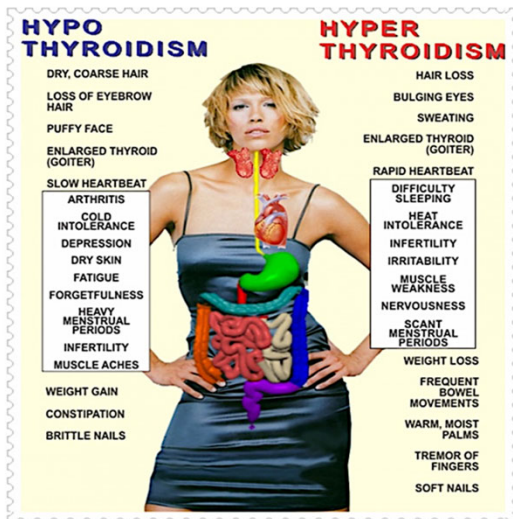
- Decreased lean body mass
- Increased body fat
- Thinning or loss of hair
- Osteopenia or Osteoporosis

### Symptoms

- Decline in sexual motivation or libido
- Fatigue and lack of energy
- Lack of sense of well being
- Lack of concentration
- Orgasmic dysfunction
- Arousal disorder
- Depression

67

## Symptoms of Low and High Thyroid Hormone Blood Levels



Hypothyroidism (Low thyroid function) increases risk of:

- Heart Disease
- Kidney Dysfunction
- Mental health Issues
- Peripheral neuropathy.
- Myxedema (intense cold intolerance and drowsiness followed by profound lethargy and unconsciousness)
- Infertility
- Birth defects

Source: Mayo Clinic

Nelson Vergel- Program for Wellness Restoration

68

## Thyroid Medications

- T4 only medications (synthetic)
  - Levothroid, Levoxyl, Synthroid, Unithroid
- T3 only medications (synthetic)
  - Liothyronine, Cytomel
- T4/T3 combo medications (synthetic)
  - Liotrix, Euthroid, Thyrolar, Compounded Products
- Desiccated Thyroid (Armour) and Compounded Desiccated Thyroid

69

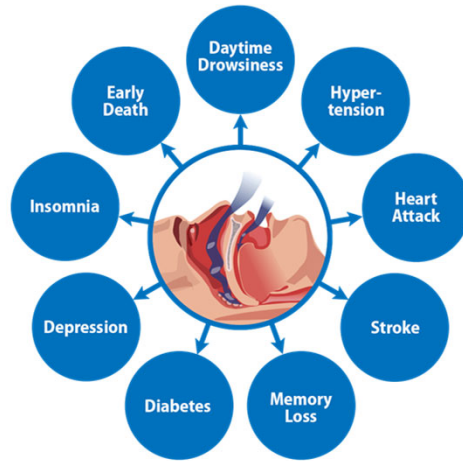
## BODY POSITIVE: SLEEP- THE PILAR OF HEALTH

### VISION 2020:

Grace Project National Conference for Women Living with HIV  
October 24, 2020

70

## Health Consequences of Poor Sleep



Sleep Apnea- CPAP Masks



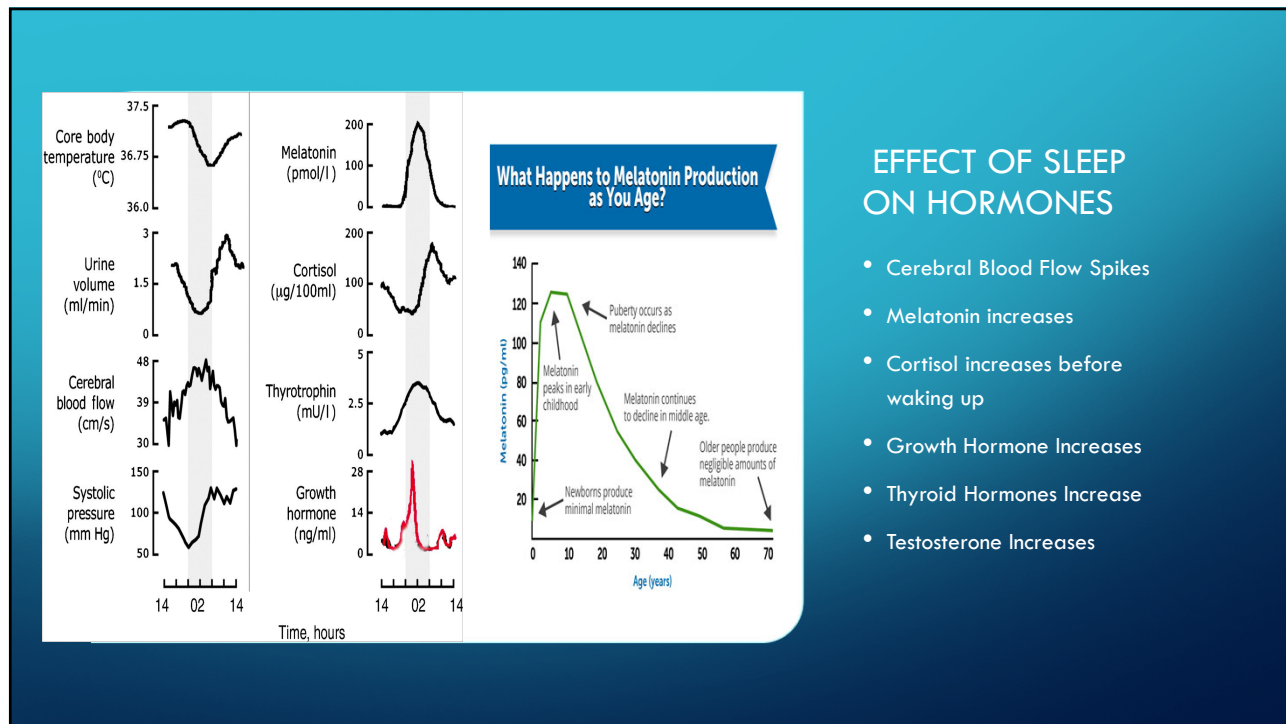
71

## Sleep Changes in Aging



- Sleep during the night changes with increasing age:
  - Less deep sleep and more lighter sleep
  - More difficulty maintaining sleep due to arousals and awakenings
  - Sleep is less efficient and more fragmented
- The internal biological clock shifts to earlier bed and wake times
- Older persons experience a higher prevalence of medical conditions and take more medications that interrupt sleep and are associated with sleep
- Older persons experience a higher prevalence of sleep disorders

72



73

## Wellue Fingertip Blood Oxygen Saturation Monitor

Quickly view history, trends of SpO2 & HR and detailed reports at any time.



Available on Amazon.com

Great way to detect potential sleep apnea that can cause fatigue and increase health risks

74

## Factors Involved in Good Sleep Hygiene



75

## BODY POSITIVE: MENTAL HEALTH

### VISION 2020:

Grace Project National Conference for Women Living with HIV  
October 24, 2020

76

## Mental Health in Aging HIV+ People

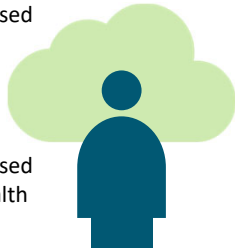
- Survey data from 831 PWH aged 50 yrs or older

**56%**

have been diagnosed with depression

**31%**

have been diagnosed with a mental health issue, other than depression



**27%**

have been diagnosed with posttraumatic stress disorder

**46%**

felt down or depressed

**39%**

felt lonely or isolated within 2 wks prior to taking the survey

**25%**

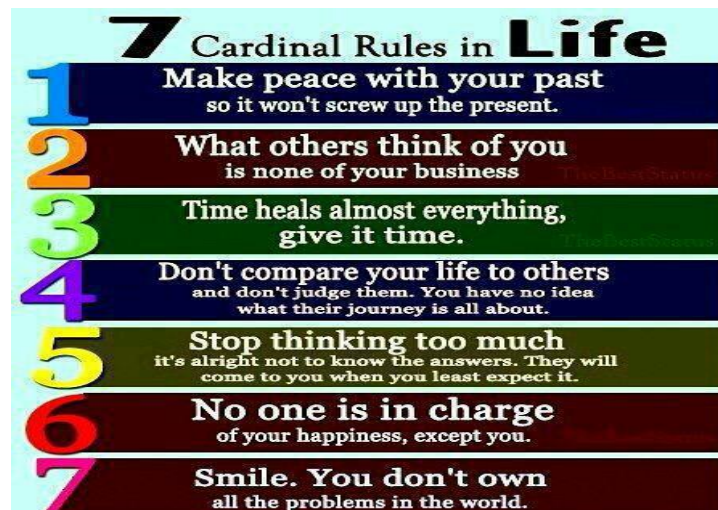
went 24 hrs without interacting with another person



HealthHIV's Inaugural State of Aging With HIV National Survey, 2020. <https://healthhiv.org/programs/healthhivs-positively-aging>.

Slide credit: [clinicaloptions.com](https://clinicaloptions.com)

77



78



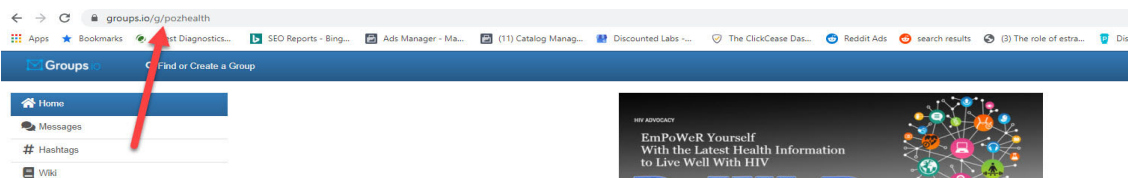
## BODY POSITIVE: RESOURCES

### VISION 2020:

Grace Project National Conference for Women Living with HIV  
October 24, 2020

79

Subscribe to Nelson Vergel's HIV Group: Send an email to [pozhealth+subscribe@groups.io](mailto:pozhealth+subscribe@groups.io)



#### Health Tips and News [pozhealth@groups.io](mailto:pozhealth@groups.io)

This is a group about HIV treatments, aging healthy with HIV and side effect management.

By joining, you will abide by the following:

- 1- You will unsubscribe yourself when you want. The moderator does not unsubscribe anyone.
- 2- You will not attack others—even if you strongly disagree with their views. This applies to emails posted to the group or to the person directly.
- 3- You will always respect the confidentiality of others.
- 4- You will post messages only on issues that are pertinent to the list.
- 5- You will respect people's gender, ethnicity, sexual orientation, religion, HIV status, political affiliations, etc.
- 6- You will not post for-profit information unless pre-approved by the moderator.
- 7- You believe HIV is the cause of AIDS
- 8- You will include subject lines so others can determine the content of your posting, and not "I have a question" or "Digest #456"
- 9- As a new member, you will read the previous postings on this group (using the search feature) before you post the same question again.
- 10- Your messages may or may not get approved by the moderator. You will accept the moderator's best judgment and will not argue about it with him/her.
- 11- You will snip off and edit the extraneous junk off of the copied text.
- 12- You are aware that anyone can google your posts. You may choose to disclose your true identity or not based on this. It is not the volunteer moderator's job to erase your old posts or to unsubscribe you.
- 13- You will talk to your doctor before implementing anything you read on this list. This list is not responsible for any decisions you make regarding your healthcare.

Subscribe by sending an email to:  
[Pozhealth+subscribe@groups.io](mailto:Pozhealth+subscribe@groups.io)

80



Please Join Nelson Vergel's Women's Health and HRT Group on Facebook  
(3,800 Members as of Oct 14, 2020)



81

# QUESTIONS?

Nelson Vergel- Program for Wellness Restoration

82