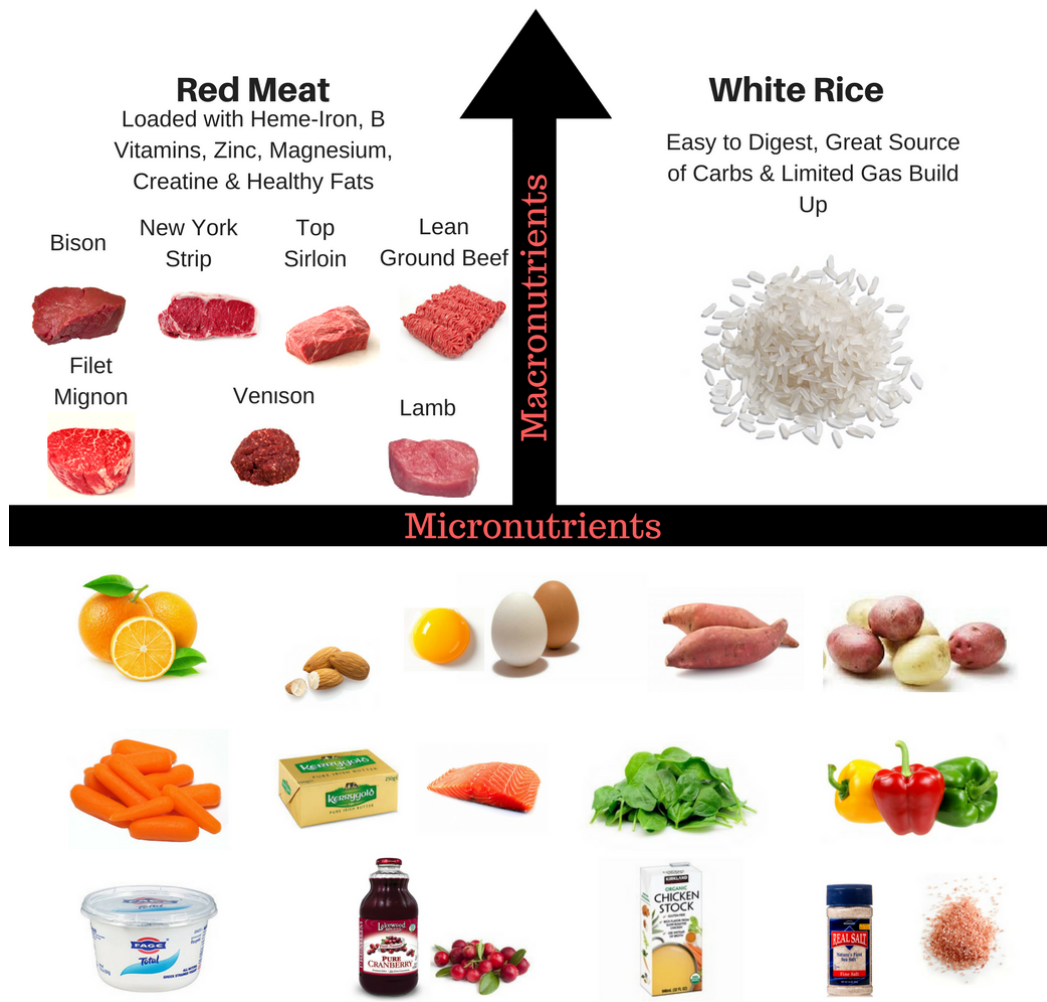


THE VERTICAL DIET & PEAK PERFORMANCE 2.0

The Vertical Diet



THE VERTICAL DIET is the culmination of over 30 years of training and dieting to gain and lose weight for competition and performance.

The Vertical Diet is a performance based nutritional framework that starts with a solid foundation of highly bioavailable micronutrients which supports a structure of easily digestible macronutrients that can be adjusted specifically to meet your body's demands.

The Vertical Diet provides the body the tools it needs to perform optimally.

"The Vertical Diet" is NOT:

It's NOT some supposed magical blend of macronutrient percentages.

It's NOT some miraculous superfood or supplement protocol.
It's NOT a restriction or starvation diet
It's NOT complicated

“The Vertical Diet” IS:

- Based on Whole Foods**
- Based on Optimizing gut health**
- Based on Correcting nutrient deficiencies.**
- Based on Correcting hormone imbalances.**
- Based on improving energy, stamina, endurance and recovery.**
- Based on a Sustainable lifestyle**

“The Vertical Diet” works for:

Men

Women

Kids

Weight loss

Muscle gain

Performance athletics

Health optimization

“The Vertical Diet” can be customized:

Low Carb

High Carb

Intermittent Fasting

Paleo

“The Vertical Diet” is being used by:

- NPC/IFBB Men AND Women bodybuilding, bikini, figure, physique competitors.**
- Amateur/Pro Strongmen/Women**
- Powerlifter Men/Women**
- Crossfit**
- NCAA/NFL Football**
- NCAA/Olympic Track and Field**
- Amateur/Professional MMA fighters**
- Recreational Athletes**
- Men, Women, Boys and Girls of all ages.**

“The Vertical Diet” includes:

Sleep
Hydration
Proteins/Fats/Carbs
Minerals/Electrolytes
Calculating Calories
Hormones
Blood Test Instructions
Gut Health
Specific foods
Sample meal plans
HIIT/Cardio/10 min walks
Supplements
Hypertrophy training
Strength training

“The Vertical Diet” clients include:

Eddy Coan
Mark Bell
Hafthor Bjornsson
Brian Shaw
Larry Wheels
Dan Green
Stephanie Sanzo
Bradley Martyn

***My Beautiful Wife @thickfitmom, our 6 year old daughter, 4 year old son and My 87 year old father who is on NO medications.**

THE VERTICAL DIET & PEAK PERFORMANCE:

“If you improve everything then everything improves” -Eddy Coan

BOTTOM LINE - SLEEP, EAT, TRAIN TO OPTIMIZE HORMONES.

SLEEP:

This is HUGE, that's why it's first. The more/better you sleep, the more efficient your metabolism will become and the more muscle you will build, fat you will burn and stronger you will get.

Lack of sleep slows the metabolism, increases blood pressure, increases ghrelin (hunger hormone), causes insulin resistance and increases cortisol. Sleep is also a cognitive enhancer.

Ideally, a short 20 min nap during the day is also a big help. Usually 2 hours post workout after a meal if possible is particularly beneficial when training twice or more daily. Taking a nap too late in the day however can disrupt circadian rhythms and make it more difficult to get to sleep at night.

"If you religiously take Creatine and only sleep 5 hours a night, you're a f*cking idiot"
-Stan Efferding.

If you wake up early after inadequate sleep in order to do cardio, you're stepping over \$100 bills to pick up nickels. It's a zero sum game.

Ideally, sleeping more than 8 hours is optimal and 9-10 hours for athletes has been shown to improve strength and performance even more!!

Greg Nuckols (Strongerbyscience.com) recent Meta-Analysis on sleep states that:

"The biggest takeaway from all of these studies is that nothing beats making sure your head is on your pillow for enough hours each night. Both studies examining the effects of sleep extension (increasing time in bed to 9-10+ hours per night) found marked performance improvements in high-level athletes in a short period of time, while all other interventions had mixed results."

-Greg Nuckols

Sleep loss limits fat loss:

<https://www.sciencedaily.com/releases/2010/10/101004211637.htm>

Sleep is also CRITICAL for learning physical and mental patterns and skills for sports and education:

<https://www.theatlantic.com/health/archive/2014/04/for-better-performance-athletes-need-sleep/361042/>

*Practicing good sleep hygiene:

- Sleep according to your circadian rhythms. 10pm-6am or 11pm-7am.
- Every hour you get to sleep before midnight is like 2 hours in the sleep bank!
-
- 7-10 hours of sleep plus a 20 min nap is optimal depending on your age and workload. (More than 20-30 minutes and you may begin Deep or REM sleep which will make you groggy when you wake up).
- Wake up at the same time every day, 7 days a week, this helps set the clock making it easier to get to sleep at night.
- Sleep in a pitch black room with blackout blinds. Turn off ALL appliances, nightlights etc...
- Sleep in a Quiet room or use earplugs or earphones.
- Don't take stimulants like caffeine or drink too many fluids too close to bedtime.
- Some carbohydrates in your meal about 2 hours before bed has been shown to help with quality of sleep and helps prevent waking. The brain doesn't sleep and doesn't stop using glycogen all night so if the brain gets hungry it will cause the release of adrenaline and cortisol to get glucose from muscle tissue (gluconeogenesis).
- No TV or phone within an hour of bed (the bright light prevents melatonin secretion). Wearing blue light blocking glasses will help reduce the waking impact of electronics on the eyes.
- Take Vit D3 If blood levels are low. 60-80 ng/dL is the optimal range.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5541280/>
-
- Children and pets should sleep in a separate bed. I get it, I have a 6 year old and a 4 year old but every time they move or make a noise you come out of REM!!
-

Sleep Apnea - If you hold your breath or snore during sleep or wake up tired then you may need a sleep study and ultimately a CPAP. This can be an expensive and time consuming Process but it's imperative. You may opt to buy a used CPAP on Craigslist for an immediate and affordable resolution. I use the Resmed Remstar Plus with "auto" function so the pressure auto adjusts. Masks are available on Amazon if not included.

SLEEP CPAP AND MASK -

CPAP

https://www.thecpappeople.com/Products/Respironics-System-One-REMstar-Plus-CPAP_DS260S.aspx?gclid=EAlaIqobChMlioag4vPp2QIVSJr-Ch2GmASmEAYYAyABEgKAr_D_BwE

Search for “CPAP” on Craigslist in your area and find the remstar system one auto or a comparable “auto” set machine.

SLEEP TEST: Go to [Sleeptest.com](https://www.sleeptest.com) for an at home sleep test.

Try [CPAP.com](https://www.cpap.com) for new CPAP machines

Mask - I’ve found the “Nose Pillow” to be the most comfortable. Here it is available on Amazon.

https://www.amazon.com/gp/aw/d/B071FB3YRN/ref=yo_ii_img?ie=UTF8&psc=1

SLEEP AIDS:

Melatonin has not been shown to be beneficial for regular sleep and may actually cause drowsiness upon waking. It has been shown to be helpful for resetting circadian rhythms when traveling to minimize jet lag.

Prescription sleep aids often prevent you from entering REM and Stage 4 sleep. I don’t recommend sleep aids or prescriptions.

*Dr Stasha Gominak MD, Neurologist and sleep specialist has some fascinating articles on her website: [DrGominak.com](https://www.drGominak.com)

This interview with Dr Gominak on High Intensity Health is packed with great information including sleep effects on Gut Health, Repairing chronic diseases, child development, behavioral disorders and much more:

Dr Gominak - High Intensity Health YouTube.

<https://youtu.be/74F22bjBmqE>

SALT:

Salt all of your meals. This is a huge performance enhancer and metabolism booster and will help you recover faster from workouts and have more stamina and endurance.

Dr Dinicolantonio, Author of “The Salt Fix” prefers one of two salts due to their additional mineral content and their purity and lack of contaminants:

-Redmond Real Salt

<https://www.amazon.com/redmond-real-salt/s?ie=UTF8&page=1&rh=i%3Aaps%2Ck%3Aredmond%20real%20salt>

-Pink Himalayan Salt

These salts have some iodine in them. Iodine powerfully stimulates thyroid function and improves the immune system by ridding toxins from the body such as fluoride, chlorine and Bromide.

Athletes sweat out iodine during exercise and are much more likely to become iodine deficient than sedentary people:

Excessive Sweating, Athletic Performance and Iodine deficiency:

<http://blog.zrtlab.com/excessive-sweating-athletic-performance-and-iodine-deficiency>

IODINE - (RDA 150mcg) Stimulates Thyroid, boosts metabolism, boosts the immune system, fights cancer.

Food sources: seaweed, kelp, cranberries (4oz=400mcg), Wild caught cod (3.5oz=95 mcg), Yogurt (8 oz=90 mcg), raw milk (8 oz=45mcg), eggs.

Himalayan crystal salt (1g=500 mcg iodine)

Cranberry Juice is an excellent source of iodine and also has antioxidants and tannins for urinary tract protection.

Cranberry juice will NOT prevent Urinary Tract Infections (UTI) but it may help reduce the likelihood of contracting a UTI and/or reduce the severity and duration of a UTI if in your system prior to the infection.

Use only Fresh pressed, pure, unsweetened (no added sugar) cranberry juice NOT from concentrate.

4oz 2x a day. Not after 4pm. It stimulates thyroid and can keep you awake at night.

Lakewood Pure Cranberry Juice is available on Amazon, at Whole Foods or in the health food section of most grocery stores:

<https://www.amazon.com/Lakewood-Cranberry-Juice-32-Ounce-Bottles/dp/B001LO511W>

LakewoodJuices.com

Q: Amount of iodine in Lakewood Pure Cranberry?

A: Each 8 ounce serving has a Daily Value of 660%¹

Calculations

$\% \text{ DV} = 993.6696 \mu\text{g} \times 100\% / 150 \mu\text{g} = 662.4464 \% = 660 \%$

Ocean Spray has a more affordable option of Pure Cranberry Juice but they weren't able to verify the iodine content with me. I have to assume it's similar if it's PURE cranberry juice:

<http://www.oceanspray.com/Products/Juices/By-Type/Pure/Pure.aspx>

Cranberry Juice "drink" is typically a blend of other juices. 100% cranberry juice is typically from concentrate which is not optimal. "Pure" cranberry juice is NOT from concentrate.

I prefer prioritizing whole food sources of micronutrients. If you supplement iodine, however, use only "nascent iodine".

When you first start increasing iodine intake you may feel some flu like symptoms. Toxins such as Chlorine, Fluoride and Bromide can occupy iodine receptor sites. These toxins are displaced back into the bloodstream to be filtered out of the system by the kidneys when iodine is taken in sufficient quantities.

¹

When you first start salting all your meals, you may gain a few pounds of water but it will drop off within a week when your body realizes you're not restricting sodium any more.

There is a small percentage of people who are salt sensitive so monitor your water retention and blood pressure when you introduce salt.

Generally speaking, for an athlete training daily, I'm shooting for at least 8g of sodium daily from all sources per gallon of water consumed from all sources (bone broth, orange juice, milk, water in food etc.).

It's best to salt your food "to taste" daily. You can also add a salt/mineral tablet to your water such as a NUUN tablet or take a thermotab but salting your food is better (more on this under "Water")

You can set a phone timer for 1 1/2 -2 hours depending on how many meals you eat daily and every time it goes off, either eat a meal (about every 3-4 hours) or drink an 8oz glass of water with a Nuun tablet or thermotab or you can drink 3 oz O.J. diluted with 6 oz water between meals if your diet calls for it.

I don't like to drink a substantial amount of fluids WITH meals so as not to dilute the stomach acids needed to effectively digest food.

Too much sodium without ample food to be used as a courier will cause diarrhea so don't over do it. Too much salt on your food will cause diarrhea as well ...

Salt is NOT a "More is Better" scenario!!

Dr Dinicolantonio suggests using 1/2 teaspoon of pink salt (1,000mg) 30 min before training for increased stamina and endurance.

Dr Dinicolantonio, author of "The Salt Fix" Youtube interview:

<https://youtu.be/eTr3S2Bqlow>

Sodium your secret weapon

http://www.t-nation.com/free_online_article/sports_body_training_performance_nutrition/sodium_your_secret_weapon

WATER:

There is no quicker way to experience a drastic decline in performance than to not maintain proper hydration. That means coming to the gym hydrated and staying hydrated while you train.

It's important that you have sodium and minerals and electrolytes with your food and water. Salting your food will help with your sodium demands.

Too much Water by itself can dehydrate you by diluting valuable minerals and electrolytes. That's why most sports drinks have sodium in them but it's not nearly enough for athletes or it wouldn't be palatable.

****Sandra Fowkes Godek** holds a doctorate in exercise physiology and is director of the Heat Illness Evaluation Avoidance and Treatment (HEAT) Institute at West Chester University in Pennsylvania. She specializes in thermoregulation, hydration and electrolyte replacement in football players, and she's worked with top athletes at the NFL level. She says the following in her article:

1. 8 glasses of water a day is bullshit. Sandra says drink when you're thirsty.
2. Lack of Water is rarely the cause of performance loss due to dehydration, it's low minerals such as sodium and potassium. Gatorade and other hydration drinks that have sodium in them can't replace the electrolytes lost by a salty sweater. It's too diluted. A drink with enough sodium wouldn't be palatable. Best to eat a meal with sodium and especially carbs which improves sodium transport.
3. You can drink too much water. Peeing clear is not a good thing.

Dr. Godek - Dehydration Myths:

<https://therussells.crossfit.com/2014/08/28/dehydration-myths-by-dr-sandra-fowkes-godek/>

Drinking too much water:

<https://www.thankyourbody.com/drinking-too-much-water/>

BLOOD SUGARS/TYPE I & II DIABETES/INSULIN SENSITIVITY/HA1C

Optimizing blood sugars and improving insulin sensitivity is critical for weight loss, mass gain and performance.

Improving insulin sensitivity improves 'nutrient partitioning' which determines whether the foods you eat are preferentially stored as fat or used for muscle glycogen and muscle repair.

It also helps insulin restore blood sugars to a normal level more quickly after eating.

Chris Kresser has a great article about "Diabesity"

<https://chriskresser.com/diabesity/>

Here are my top tips for improving insulin sensitivity which may help reverse type II diabetes and/or reduce the frequency and amount of insulin necessary to maintain optimal blood sugar levels in diabetics.

1. Take brisk 10 min walks after meals (exercise is TWICE as effective as the popular drug Metformin for blood sugar control!!).
2. Lose weight (Damn near everyone who loses body-fat lowers blood sugars along with cholesterol and blood pressure).
3. Get a CPAP and improve sleep!!
4. Get iodine to improve thyroid function (pure cranberry juice 4 oz daily)
5. Eat 2 oranges daily
6. Salt food
7. Eat a carrot daily
8. Eat 2 whole eggs daily (Choline in the yolks helps regulate blood sugars)
9. Take 8,000IU Vit D daily (Maintain blood levels of VitD, 25 Hydroxy between 60-80)
10. 20-30 minutes resistance training at least 2x a week, more often if able, (Muscle improves insulin sensitivity and stabilized blood sugars).
11. Daily calcium (Whole fat Greek yogurt daily. FAGE TOTAL or powdered egg shells if allergic to dairy).
12. Daily Magnesium (cooked Spinach, sprouted almonds)

***THESE SAME METHODS ALSO HELP TO IMPROVE ENDOGENOUS TESTOSTERONE PRODUCTION AND REDUCE BLOOD PRESSURE!!**

FRUIT/FRUCTOSE:

FRUIT/FRUCTOSE for weight loss?

Fruit is GREAT for weight loss. It powerfully stimulates the liver, improves thyroid function and raises metabolism (increases body temperature!):

Ray Peat - Fructose and metabolism 1

<https://youtu.be/uXuuPqPXrOw>

Ray Peat - Fructose 2

<https://youtu.be/nIG8vV2hDg8>

Fruit is also HEALTHY!!! Science suggests, the more fruit the better for health and weight loss (Caveat: It's primarily a calorie equation so reduce calories elsewhere to maintain balance).

It has been suggested that plant fiber and phytochemicals may be responsible for the anti-obesity effects of fruit, but cereals are also rich in phytochemicals and fiber yet they have no remarkable anti-obesity effects:

Nutrition facts.org YouTube video - fruit and weight loss

https://youtu.be/nU_RkeA88DY

The PURE Study which was conducted by Dr Yusuf (Cardiologist and president of the World Heart Foundation) on 200,000 participants in 200 countries for 14 years found fruit to be “protective” of cardiovascular disease and decreased all-cause mortality:

PURE Study:

<https://youtu.be/RwGteseHyas>

Fructose and dextrose when taken together after training create an accelerated uptake and increased glycogen storage effect.

The role of fructose and sports drinks:

<http://www.nutritiontactics.com/role-fructose-sucrose-sports-drinks-video/>

I include fruit in the Vertical diet for these reasons. I suggest oranges for weight loss and pulp free orange juice for weight gain. Both stimulate metabolism. Oranges have

some fiber which can mitigate some hunger effects and orange juice helps increase hunger for those that need to eat more to gain size and strength.

POST WORKOUT DRINK:

I like to quickly replace what your body uses during hard training which is mostly water, sodium and glycogen. Research suggests that speed and quantity of uptake can be maximized using dextrose and fructose.

The role of fructose in sports drinks:

<http://www.nutritiontactics.com/role-fructose-sucrose-sports-drinks-video/>

By way of George Lockhart (Conor McGregor, Jon Jones and Cyborg's nutritionist), I've used the following post workout drink for myself and many clients with great success:

Post Workout Drink - Quantities may adjust upwards for larger athletes and longer training sessions:

-25g fructose (8oz pulp free OJ or NOW fructose on amazon)

-50g dextrose (NOW brand on amazon)

-600-1,000mg sodium (1/2 teaspoon pink salt on tongue washed down with drink or 2-3 "thermotabs")

-100mg caffeine - nodoz

*Mike Dolce (The Dolce Diet, UFC nutrition coach) uses Rice powder and fruit (grind rice in a coffee grinder) to make a post workout drink which works much the same. Just add the salt.

OR white rice with sugar or honey on it (which is 40-50% fructose) works as well.

*Do NOT consume proteins or fats with this post workout carbohydrate drink, it slows absorption. Eat a regular meal 30 min to an hour later.

Remember, it's not a 'more is better' scenario. It's intended to replace what was lost during training as quickly as possible so you're rehydrated to optimize recovery.

This is particularly beneficial for athletes training two or more times a day!! You'll have significantly more energy, stamina and endurance during subsequent training bouts.

PROTEIN:

Protein is critical to repair and build muscle tissue which is the engine that burns the fuel in your body. Too little protein can cause muscle loss and impaired performance. Too much protein does not further increase muscle protein synthesis and can slow the metabolism and decrease appetite which may be undesirable for mass programs requiring increased calorie consumption.

For lean, active people who lift weights regularly, I generally include 1g of protein per pound of bodyweight (which is already higher than the .6-.8g/lb found to be sufficient for athletes in research). For those who have a high body fat percentage or are eating high carbs for weight gain, I recommend 1g/lb of lean body mass.

Research suggests we can get most of our proteins needs satisfied with 20g of protein per meal (90% MPS - muscle protein synthesis) but doubling that amount to 40g Per meal can yield another 10% MPS and provide you 100% of the MPS.

Perfecting Protein Intake

<https://www.strongerbyscience.com/athlete-protein-intake/>

For this reason, I like to see a minimum of 20g protein per meal but for larger athletes and those with a significant amount of muscle mass and training frequency/intensity, I typically shoot for the higher end of that range (20-40g protein per meal).

I also prefer to eat protein at least every 3-4 hours throughout the day to prevent a deficit from occurring by having available amino acids circulating. I recommend eating More often if trying to gain weight. I believe it's easier on digestion to prioritize meal frequency over meal size.

The body wants WHAT it needs WHEN it needs it. There's no mechanism to store protein in the body. If there aren't adequate available amino acids circulating, the body will take them from muscle tissue when other repairs or energy demands are prioritized. Same is true for glycogen needs when at a calorie deficit. The body will break down muscle tissue for energy (gluconeogenesis).

FATS:

Fats are good. Fats will help you lose fat. I will recommend using some cholesterol based animal proteins for your diet instead of the typical egg whites or tilapia.

Always keep at least 1 yolk in with eggs/egg white meals for the necessary complimentary nutrients:

<http://www.strengthsensei.com/whole-eggs-or-egg-whites/>

****Red meat is a game changer. It's loaded with heme-iron, B-vitamins, Zinc, magnesium, Creatine and much more.**

Worried about saturated fats or red meat? Don't be:

<https://www.jewsnews.co.il/2013/08/27/world-renowned-heart-surgeon-speaks-out-on-what-really-causes-heart-disease.html>

<https://chriskresser.com/the-truth-about-red-meat/>

PROCESSED VEGETABLE OILS:

I am not a fan of processed vegetable oils (canola, corn, soybean oils) or peanut oils. Most of them are high in Omega 6 fatty acids and turn rancid when used for cooking. I prefer to use Omega Eggs, a couple servings of salmon weekly and cooked spinach for Omega 3's. A supplement to increase Omega 3 is secondary to food and should not exceed 2g/day.

If you don't like salmon then I recommend Cod Liver oil capsules for Omega 3's as well as Vitamin A. 1,500mg/day is plenty.

Use grass fed butter as allowed in your diet when needed for greasing a pan or dressing vegetables. Grass fed butter is preferable. Costco has a Kerrygold brand.

Beef Tallow is another healthy option for cooking food.

Cold pressed oils like "Extra Virgin Olive oil", avocado oil or coconut oil is fine but there should be plenty of fats in your whole food lean protein sources such as top sirloin steak, eggs and salmon. Products labeled simply "olive oil" can be up to 50% canola oil.

Most restaurants cook EVERYTHING in cheap hexane processed vegetable oils such as canola, corn and soy oil including pancakes, eggs, meats, soups, everything! It's also in the ingredients of almost every processed, bagged or boxed food.

Processed vegetable oils are poison:

http://coconutoil.com/oiling_america/

Ray Peat - Vegetable oils effects on the body.

<https://youtu.be/MdPDLc3kwVM>

Oiling of America video with Mary Enig

<https://youtu.be/fvKdYUCUca8>

Coconut oil is fine but it's no superfood:

<https://shannonskitchen.com/2015/01/21/is-coconut-oil-just-for-rubbing-on-your-titties-or-is-it-truly-a-superfood/>

7 health habits

<http://www.livingthenourishedlife.com/2013/04/7-healthy-habits-that-stress-your-metabolism>

10 benefits of eating fats

http://www.poliquingroup.com/ArticlesMultimedia/Articles/Article/1069/Ten_Amazing_Benefits_of_Eating_Fat.aspx

CARBS:

I initially limit carbs for strict weight loss programs and I include lots of carbs for weight gain programs.

Maintenance programs, body composition changes and performance based programs all use Carbs to fuel workouts and to protect muscle tissue from being used as energy.

When carb intake is low I like to keep a small amount of fructose (fruit) in the diet to stimulate the liver and thyroid function so the metabolism doesn't slow down. I also time carbs for pre and post workout when restricting.

When carb intake is high in order to gain mass and strength, I prefer carbs that are easy to digest such as white rice and some fruits such as oranges and/or orange juice.

WHITE RICE -

After utilizing fruit for its health impact and metabolism boosting effects and a potato for its micronutrients and prebiotic benefit, I use white rice as the primary driver of carbs to fuel and recover from workouts. I choose rice because it's easy to digest when compared to large quantities of other carb sources that have anti nutrients and satiating effects such as wheat, pasta, oatmeal, brown rice, vegetables.

Why I eat white rice instead of brown

<http://holisticsquid.com/is-white-rice-bad-for-you/>

When you cool Rice and potatoes in a refrigerator overnight, they create resistant starches. When you reheat them, they yield fewer calories and are more difficult to digest.

This isn't necessarily a problem for those trying to lose weight but for those trying to gain weight, it's optimal to eat freshly cooked rice.

Reheating rice

<https://fanaticcook.com/2015/03/31/another-study-demonstrates-the-calorie-lowering-effect-of-cooking-then-cooling-starch-this-time-in-rice/>

I manage this two ways.

- One, I have a delay timer on my rice cooker so I always have fresh rice ready when I need it.
- Two, I use a thermos or two to put a fresh hot monster mash in which keeps it hot for up to 8 hours. Here's a wide mouth one on amazon that's 24oz.

THERMOS ON AMAZON:

https://www.amazon.com/gp/aw/d/B008JC76XA/ref=yo_ii_img?ie=UTF8&psc=1

If you have to freeze meals with rice in them to eat later, that's fine, just be aware of the difference.

****As hot, wet rice cools down, its an ideal environment for bacteria. If you put a hot meal in Tupperware and eat it lukewarm or even cold many hours later, the bacteria may cause stomach discomfort and/or diarrhea. It's best to keep it hot using a thermos or cool it down quickly and heat it up later in a microwave.**

I also use smaller amounts of carbs that contribute to the micronutrient profile such as sweet potato and low gas vegetables like spinach, red peppers and carrots that do not cause bloating or leach nutrients from the body like high gas carbs and uncooked indigestible fibers.

I'm not a fan of flour or wheat products like bread or pasta either but total calories are more important than demonizing particular foods when it comes to weight loss. When it comes to trying to gain weight, wheat and wheat products in any significant quantity can be difficult to digest and prevent you from being able to eat enough food and efficiently digesting it which will impede progress. If you have to eat bread then Using a fermented bread such as sourdough bread may be easier on digestion.

“Every time you eat wheat, you get a leaky gut—EVERY TIME!” —Alessio Fasano, MD, a GI specialist and one of the world's leading researchers in gluten and Celiac disease

Leaky Gut

<https://paulaowens.com/heal-leaky-gut/>

Some people also have a difficult time digesting the phytic acid in brown rice and the lectins in legumes (beans) which causes bloating so watch how you respond to those carbs during your diet. It's dose dependent.

DIGESTION- GUT HEALTH - GERD/Leaky Gut:

"It's not what you consume, it's what's absorbed that matters".

-Charles Poliquin

Optimizing digestion is critical for health and performance. Compromised digestion can cause gas, bloating and impair the breakdown and absorption of both macronutrients and micronutrients.

"I don't eat foods I like, I eat foods that like me"!!

-Stan Efferding

I make that decision an hour or two AFTER I eat. If a particular food causes gas or digestive discomfort or diarrhea then I eliminate it from my diet.

I suggest a wide variety of highly bioavailable, nutrient dense foods to provide you both the macronutrient and micronutrients needed to perform optimally. If you don't like some of the foods then you can make substitutions. Ideally the substitution would provide a similar micronutrient profile so as not to create a nutrient deficiency.

When making substitutions, I suggest using the FODMAP menu to select foods that are less likely to create digestive disturbances.

This isn't a hard and fast rule as everyone responds differently to different foods but it's a guideline that could help.

Using the FODMAP guide when making substitutions may help:

<https://www.ibsdiets.org/fodmap-diet/fodmap-food-list/>

Foods that tend to wreak havoc on my digestion are:

Garlic

Onions

Processed vegetable oils (canola, soybean, corn, safflower etc)

Wheat (pasta)

High gas vegetables (broccoli, cauliflower)

Beans

Additional Foods that I can eat small amounts of (dose dependent) but large amounts can cause digestive problems due to potential allergens or anti-nutrients (physic acid, oxalates, lectins, enzyme inhibitors):

- Too much Milk
- Too many Eggs
- Too many beans/legumes (easier to digest if soaked/sprouted overnight)
- Peanuts
- Too much oatmeal (easier to digest if soaked overnight with a little vinegar or tablespoon of yogurt)
- Too much brown rice
- Too high in fat (Lots of Bacon, fatty marbled meats, cheese, butter). These tend to “leak” out of me without adequate carbs and/or fiber (carrot).

It’s important to adequately chew your foods to optimize digestion and nutrient absorption. The quality of the stool can dramatically improve simply by chewing your food better.

“Digestion begins in the mouth”

- Flex Wheeler reminded me of this 10 years ago as Lee Haney reminded him 20 years prior!

STOMACH ACID -

Part of the success of the Vertical Diet is the focus on improving the amount and acidity of stomach acids to digest foods.

Stomach Acid

<https://msanotherway.wordpress.com/2014/01/10/stomach-acid/>

How Stomach Acid Effects Gas and Bloating.

<http://www.erewhonmarket.com/how-stomach-acid-affects-gas-bloating-bacteria-and-nutrition/>

‘Meat protein stimulates stomach acidity by triggering the production of hydrochloric acid in acid-secreting cells within the stomach. Put simply, 80% of the gastric juices secreted are a direct result of chemoreceptors in the stomach detecting the presence of meat-based proteins. This keeps the stomach at a very low pH of around 1-2. A low pH means high acidity. This low stomach pH is important because digestive enzymes work

best in an acidic environment and the acidity in the stomach will sterilize ingested pathogens, bacterial or fungal.'

What Causes Acid Reflux

<https://www.sepalika.com/gerd/what-causes-acid-reflux/>

'We are actually not what we eat, but what we digest and absorb.'

Remedies to improve digestion

<https://paulaowens.com/stomach-acid/>

VEGETABLES:

Vegetables can be a double edge sword. Many vegetables are high FODMAP foods that are indigestible and can cause gas and stretch out the intestines and bloat you.

Our goal is to eat the vegetables (or any food for that matter) which provide us the biggest benefits while minimizing the drawbacks.

I will have you eat small servings of cooked vegetables in your diet that don't bloat you. Most vegetables should be eaten cooked to decrease anti nutrients (eat carrots raw). They should also be consumed with a fat source which is necessary to shuttle the nutrients into the cells. Carrots should be eaten raw.

Here's an article with a list of options:

Low gas vegetables

<http://flatulencecures.com/vegetables-that-cause-gas>

Refer to #2 and #6 in "7 healthy habits..." Article: 7 healthy habits

<http://www.livingthenourishedlife.com/2013/04/7-healthy-habits-that-stress-your-metabolism>

RED MEAT, SAFE?

Red meat articles:

The Truth about Red Meat:

<https://chriskresser.com/the-truth-about-red-meat/>

The Pure Study:

<https://proteinpower.com/drmike/2017/03/04/dr-salim-yusuf-and-the-pure-study/>

Health reasons to eat red meat:

<https://authoritynutrition.com/7-evidence-based-health-reasons-to-eat-meat/>

<http://www.biblelife.org/beef.htm>

The Nutrition of Red Meat:

<https://www.fitday.com/fitness-articles/nutrition/healthy-eating/the-nutrition-of-red-meat.html>

Why Red Meat Won't Kill You:

<http://broscience.com/why-red-meat-wont-kill-you/>

CHOLESTEROL, SAFE?

Fats and cholesterol articles

https://en.m.wikipedia.org/wiki/Seven_Countries_Study

<http://mobile.nytimes.com/blogs/well/2014/03/17/study-questions-fat-and-heart-disease-link/?referrer=>

https://www.t-nation.com/diet-fat-loss/truth-about-saturated-fat?utm_source=facebook&utm_medium=social&utm_campaign=article2734

CAFFEINE -

Caffeine dehydrates you and can impair digestion and absorption of nutrients. Caffeine also causes the release of catabolic hormones such as cortisol and adrenaline.

Coffee not only depletes sodium but it also depletes chloride (Hydro-CHLORIC Acid) necessary for the stomach to digest food and can cause or aggravate Gastric Reflux - GERD

I never use caffeine or pre-workouts. If you're properly rested, fed and hydrated (salt), you won't need coffee. Coffee is a major part of the reason you're tired to begin with.

If you need caffeine to provide you energy then something is broken in your diet, sleep and hydration.

Drinking coffee or taking stimulant based pre-workouts for energy is reactive, not proactive. It's sick care, not health care. It doesn't solve the problem, it compounds the problem!!

Dr Dinicolantonio - Author of "The Salt Fix". Caffeine dehydrates you (Listen at 3:00 mark):

<https://youtu.be/eTr3S2Bqlow>

I'm not opposed to a little coffee so long as your coffee choices don't include extra calories (sugar) and you mitigate the effects of dehydration by using adequate salt and you're careful the caffeine isn't interrupting sleep. I prefer to use adequate amounts food (carbs), sodium and water to provide energy for workouts.

In some instances, I do like to use 100mg caffeine (1/2 no-doz) with post workout carbs for recovery from a huge workout or after the first workout in a day when you train more than once simply to help speed the absorption of the post workout carbs and sodium.

Mikhail Koklyaev told me he never takes stimulants when training because it prevents him from being able to draw on his own adrenaline needed when competing.

If you use stimulants regularly then your body attenuates to them so you won't realize any benefit if you choose to use them when competing.

Salt, fructose, iodine, calcium, magnesium, B12 and other nutrients in the Vertical Diet are POWERFUL stimulators of metabolism and will raise body temperature which will cause you to burn more calories at rest and more efficiently recover from training.

Caffeine or no caffeine

http://www.poliquingroup.com/ArticlesMultimedia/Articles/Article/1085/Caffeine_or_no_caffeine__.aspx

CARDIO:

I'm not a fan of steady state cardio unless your sport is distance running. It sends the wrong message to the body when trying to maintain lean body mass. Muscle is heavy, it has a high oxygen demand, it has a high water and nutrient demand. If your body is required to do a lot of steady state cardio, it will get rid of muscle:

Final nail in the cardio coffin

http://www.t-nation.com/free_online_article/most_recent/the_final_nail_in_the_cardio_coffin

10 min walks after meals and “HIIT under load” is all you need if you want to improve cardio while still stimulating muscle (20 rep squats, weighted carries, stair sprints, prowler push/pulls, uprights to a press, antagonistic supersets like Chest/Back).

10 MIN WALKS:

I recommend 10 minute walks whether dieting to lose weight or eating to gain weight, strength and size. A brisk 10 minute walk after each of 2-4 meals daily greatly improves insulin sensitivity, decreases gas, improves digestion, decreases DOMS and aids in recovery. Three 10-minute walks is superior to one 30-minute walk daily.

NEW YORK TIMES - Short bursts of exercise may be as beneficial as regular workouts in extending life:

<http://www.foxnews.com/health/2018/03/26/short-bursts-exercise-may-be-as-beneficial-as-regular-workouts-in-extending-life.html>

It is also advisable to stand for at least 10 minutes out of every hour throughout the day when you have a sedentary job or are traveling long distances. Sitting is a disease. Don't sit more than an hour without getting up and moving around. This is especially

important on long plane flights where some people may even be successively to life threatening embolisms causes by extended sitting.

Standing for 3 hours a day as opposed to sitting has the equivalent calorie consumption benefit as running 10 marathons a year.

The Science Behind the 10-min Walk

<https://link.springer.com/content/pdf/10.1007%2Fs00125-016-4085-2.pdf>

Standing vs sitting

<http://www.bbc.com/news/magazine-24532996>

10 surprising benefits of a 10-minute walk

<http://www.wisebread.com/10-surprising-benefits-of-a-10-minute-walk>

People who performed three BRISK 10 minute walks daily (4,000 steps) had better health outcomes than those who performed over twice as many steps without elevating the heart rate:

Forget walking 10,000 steps a day

<http://www.bbc.com/news/health-42864061>

“HIIT UNDER LOAD”:

“HIIT under load” provides improved cardiovascular benefits while still stimulating muscle. Any weighted exercise utilized with higher reps, brief rest periods and/or supersets will work. Examples are 20 rep squats, weighted carries, stair sprints, prowler push/pulls, uprights to a press, antagonistic supersets like Chest/Back).

These are commonly used during hypertrophy training but I also like to use them on a more limited basis as a finisher for the first few weeks of transition into a strength training progression.

The Best Exercise for Aging!

<https://www.healthspiritbody.com/exercises-for-aging-muscles/>

CALORIES -

Few things raise eyebrows in the nutrition industry more than the claim that gaining or losing weight is a calorie equation.

Dr. Layne Norton has been talking about this for years stating that when you control for calories and protein, moving fat and carb percentages up and down has no measurable differentiating effect on weight loss.

A recent meta analysis on this topic agrees with this conclusion:

Low Fat vs Low Carb

<https://examine.com/nutrition/low-fat-vs-low-carb-for-weight-loss/>

Another great article discusses this topic as well:

The Best Fat Loss Article on the Internet:

<http://physiqonomics.com/fat-loss/>

The reason I mention this is to stop the crazy demonization and/or adulation of fats or carbs which results in over restriction and compromises results.

The argument that your body doesn't "need" something doesn't address whether it's optimal for result or performance.

Over restriction of macros or micros will impede performance as evidenced in this article:

Controversies and recent developments of the Low FODMAP diet.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5390324/>

It's a double edged sword. While there are advantages to eliminating some foods from the diet for improved gut health, there are also drawbacks in becoming nutrient deficient.

I've attempted to balance this equation with The Vertical Diet in the hope of getting the best of both worlds. I eliminate or reduce the consumption of foods that are likely to aggravate digestion and I include a broad micronutrient rich foundation of foods that are necessary for performance.

It's important that you don't over restrict and attempt to get all the necessary macro and micronutrients.

It's also important to understand how your body burns calories so we can stay focused on what matters most.

70% of your daily calories are burned at rest. This is your Basal Metabolic Rate (BMR).

15% of your daily calories are burned from daily activities. This is your Non Exercise Activity Thermogenesis (NEAT).

10% of your daily calories are burned from eating food. Digesting Protein burns more calories than fats and carbs. This is called the Thermic Effect of Food (TEF).

5% of your daily calories are burned from exercise. This is called Exercise Activity Thermogenesis (EAT).

As you can see, more exercise is not the solution to more fat loss. Exercise is a stimulus. The solution for maximum fat loss is as follows:

1. Increase your BMR by lifting weights so you add more muscle and burn more calories at rest.
 2. When trying to burn calories to lose fat, Stay active throughout the day. Don't sit or remain idle when awake, stay on your feet and keep busy. Don't underestimate how valuable this can be.
 3. Eat a high protein diet (generally 1g/lb) and eat frequent meals so as not to create a protein deficit and to fuel increased workload.
 4. Exercise.
- In that order.

Regular cardio will make you fat

<http://www.t-nation.com/training/regular-cardio-will-make-you-fat>

Metabolic adaptation to weight loss

<http://www.jissn.com/content/pdf/1550-2783-11-7.pdf>.

(Look at the chart on page 2 depicting how calories are burned)

CALCULATING CALORIES:

How many calories should you eat? That depends. Everybody is different. The best thing to do is to pick a starting point somewhere near where your current calorie intake is but clean up the diet and make the recommended adjustments and then see if you gain or lose weight and more importantly if your body composition and/or performance improves. Based on your response, you can add or subtract calories as needed.

Calculating your BMR (Basal Metabolic Rate) Plus your daily activity may give you a good starting point. You can use the calculator at this site:

<http://www.bmi-calculator.net/bmr-calculator/>

Ultimately, it is a calorie equation but that can be influenced by many factors such as BMR, Activity level, hormones and diet.

HORMONES:

Proper hormone balance is necessary for results. This is why I encourage blood tests. Lack of salt will slow your thyroid/metabolism. Too much cardio will decrease testosterone and slow thyroid. Lack of sleep will decrease testosterone, increase cortisol and decrease thyroid.

Cholesterol is required for manufacturing hormones in the body which is why I include lean red meats and the liver is critical for detoxifying the body and aiding in digestion which is why I include some daily fruits and vegetables.

If you are deficient in one or more hormones it will impede progress and may cause many other health problems. It is extremely difficult if not impossible to build significant muscle tissue when you have low testosterone (hypogonadal). It is also extremely difficult to lose body fat if you are low thyroid (hypothyroid). There are also surpluses that are detrimental.

Getting a blood test will help identify deficiencies and surpluses.

BLOOD TEST:

Blood test instructions:

1. Go to Stanefferding.com
2. Select "blood test". It will redirect you to privatemdmlabs.com.
3. Select "all tests".
4. Select the "Male athletic anti aging panel" (Women, choose the "Female Ultimate Anti-Aging Panel with F&T Testosterone")
5. Add a "Vit D, 25 Hydroxy" test to it and add to cart.
6. Use rhino as a discount code for 15% off.

They will email you a form that you print out and take to the nearest lab for the blood draw (the site will guide you to the nearest lab). Then they email you the results within about 3 business days.

BLOOD TEST RESULTS:

There are many things on the blood test that can indicate health or performance issues which should be addressed. This section will evolve as I update it with more information:

AST/ALT: Liver enzymes are important to watch. The liver is the body's chemist and a healthy liver can improve metabolism and thyroid function.

People who lift heavy weights may see a slightly elevated ast/alt which is common and is not necessarily due to poor liver function.

https://www.t-nation.com/living/tip-how-lifters-should-read-lab-results?utm_source=facebook&utm_medium=social&utm_campaign=article4499

SUPPLEMENTS:

“Shakes are for Fakes”

-Stan Efferding

I'm not opposed to shakes just like I'm not opposed to leg extensions. They're a nifty little accessory exercise but they're not a Squat!! Supplements are helpful when a macro or micronutrient deficient meal needs augmented or if one is not available at all but this notion that shakes are somehow better than food is bullshit being peddled by supplement companies.

Eat steaks not shakes. Steak is the Squat of Foods.

Some Supplements can help but should never replace food. You will be eating your meals and not drinking them. One shake in your diet post workout is ok only as a matter of convenience but I always prioritize real food over shakes.

I supplement mostly in order to remedy deficiencies. Too little of any nutrient will hinder progress but too much can be bad as well:

<http://www.dailymail.co.uk/health/article-3047416/Supplements-increases-risk-heart-disease-cancer-study-warns.html>

Everybody is different. I use blood tests to identify immediate concerns then we monitor results and include/exclude foods first to see if we can identify and fix any problems. If we can't get enough micronutrients from food then a supplement is warranted.

Caffeine can be used as a stimulant but regular use of Fat burners and pre workouts can wreak havoc on your adrenals and cause chronically elevated cortisol levels so it should be used sparingly.

PROTEIN BARS:

I feel the same way about Protein bars as I do about shakes. It's just lazy to eat them instead of a meal. They're NOT a meal or even a snack. Most protein bars are sweetened with sugar alcohols such as sorbitol and mannitol or any other other long list of "ol's". These are notoriously difficult on the gut. How do we justify not eating "processed" foods or fast foods then pop open a can or a bag or a foil wrapper and drink a shake or eat a snack with a shelf life of 2 years? Doesn't make sense!

*The same is true of chewing gum. It's sweetened with sugar alcohols and causes stomach irritation, gas and bloating. Brush your damn teeth and floss. Skip the gum.

Here's a list of supplements I commonly include in programs.

Multi-vitamin

Vit D3 as warranted

B-complex Vitamin

Calcium/Magnesium/Zinc

Other supplements that may provide some general benefit are:

Whey Isolate

Creatine

- Creatine Monohydrate is just as good as buffered and micro filtered products.

Omega 3's if NOT taking cod liver oil.

- Omega 3's are blood thinners. So is Turmeric and Aspirin. Be aware when combining two or more of these. Never take more than 2g a day. I prefer to get my Omega 3's from food.

Costco/Kirkland brand is rated 5 stars by consumer reports and they're high quality and very affordable.



***Detox - defined:**

- when I speak of detox, I'm referring to providing the body the nutrients necessary for it to do its job. There is no such thing as "detoxifying" your system by "cleansing it out". Juicing, lemon water, fasts etc are only effective if they provide the kidneys and the liver (and the skin and lungs) the nutrients they need to do their job. Some fiber is necessary for the kidneys and liver to attach toxins so they can be transported out of the body instead of recirculating. The best form of "detox" is to stop putting the garbage processed, packaged and preserved foods in your mouth in the first place.

<https://www.theguardian.com/lifeandstyle/2014/dec/05/detox-myth-health-diet-science-ignorance>

IMMUNE SYSTEM AND COLDS:

The Vertical Diet focuses on improving gut health and the immune system by eliminating the sources of the problem (toxins, anti-nutrients etc) and optimizing the body's ability to stay healthy by giving it what it needs to do what it does best (adequate sleep, salt, iodine, Vit D3 and many other necessary macro and micronutrients).

"An ounce of prevention is worth a pound of cure"

Users of the Vertical Diet will realize a significant improvement in health and experience fewer colds, less often and with decreased duration and intensity.

I fly all over the world, meet and shake hands with thousands of people, have two young kids at home, still train hard at the gym and I haven't had a cold in nearly 2 1/2 years of any significant degree (I missed one workout in the last 2 1/2 years with a mild head cold that was gone the next day).

In the unavoidable and unfortunate event that you do feel the initial symptoms of a cold such as irritated throat or clogged sinuses, IMMEDIATELY begin this protocol:

- Gargle with warm salt water (every hour)
- Wipe the insides of the nostrils with an alcohol pad a couple times a day (nose rinse afterwards and monitor for excessive drying-out of the nose lining so it doesn't bleed)

- Carefully use a Nose rinse or Neti pot a few times a day as needed to clear the sinuses of mucus. Costco has a “Simply Saline” spray that’s convenient and easy to use.
- Charles Glass also recommends taking glutamine since it’s lowered during a cold.

These methods don’t “cure” a cold but they can drastically decrease the severity and duration of a cold by helping your body kill the bacteria while the immune system ramps up its defenses.

ANTIBIOTICS

Antibiotics may be necessary for stubborn infections but you should visit a doctor for a proper diagnosis and testing to determine if they are needed. Antibiotics kill the good bacteria in your gut which will impair digestion and absorption of nutrients and hinder performance as a result.

DIET:

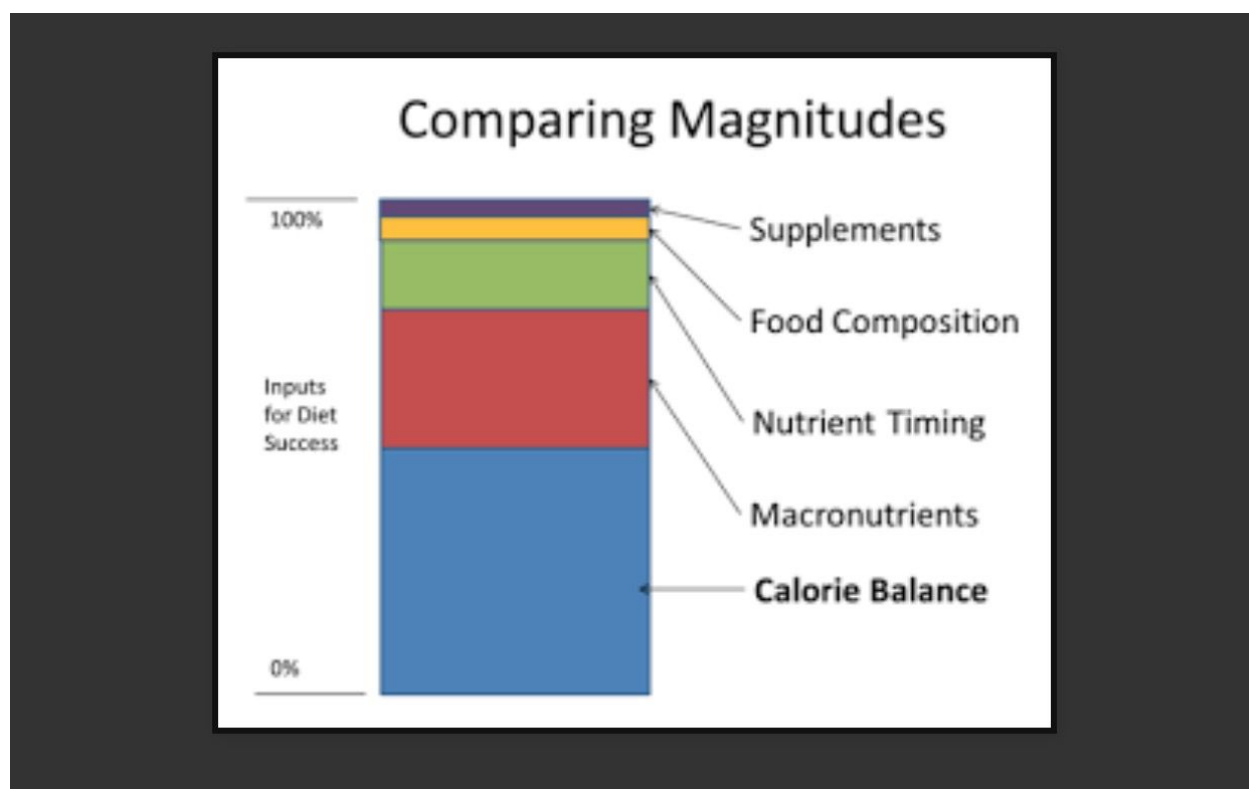
First and foremost, let’s prioritize what’s most important so we don’t over emphasize the little things.

A general chart looks like this although I think calorie balance is more like 80% of the game!!

Nick Shaw – Founder and CEO of Renaissance Periodization-

(<https://renaissanceperiodization.com>)

-Who’s organization is a world leader in nutrition and training programs has produced this chart demonstrating the hierarchy of priorities as they relate to the importance of diet and supplementation.



1. Calorie Balance: Calories in vs calories out!!!

It's simple math and this is most important. The macros are a distant second. If all you did is count calories and adjust downward to lose weight or upward to gain weight you'd be most of the way there but you have to be persistent, honest and accurate to continue to make progress. I try to keep athletes adequately fed (no restriction) and use workload and muscle building to create the engine that burns the fuel.

Remember, calorie balance isn't just what you eat, it's how much you burn both through workload and metabolism (70% of your calories are burned at rest so we want to build a bigger engine to burn the fuel and stimulate metabolism with the proper foods).

2. Macros:

Protein is the key Macro. I generally fix this at 1 gram per pound on lifting days and I use "nutrient dense" proteins that yield significant highly bioavailable micronutrients like iron, creatine, B-Vitamins etc. These are cholesterol based animal proteins such as Red meat, eggs and salmon. Dairy is also good for those that do not have whey allergies or lactose intolerance. Chicken and turkey are ok but they're not as nutrient rich as red meat and they are mostly fed soy which I believe further compromises their nutrient

value and I'm not exactly certain what all goes into a commercial turkey grinder (think beaks and buttoholes).

I also never restrict any of the macros to below about 10% of total calorie intake. It's just not sustainable and is a recipe for creating deficiencies and/or cravings.

3. Nutrient timing.

Not terribly important but I always like to have carbs around workouts. I also like to skip breakfast carbs because they tend to make you tired and not eating carbs for breakfast may help your body use more fats as fuel throughout the day. Having said that, carbs are not the enemy, calories are, and only those calories that exceed your daily burn rate which we'll tackle with training and increasing muscle, not starvation!!

Remember, the calorie equation and macros are just a starting point. You will need to make adjustments quickly once you see if you are gaining/losing weight, improving body composition and/or performance.

You can also make substitutions based on your food preferences so long as you stay within the calorie limits.

For instance, if you don't have any problem with bloating then your carb can be oatmeal with cinnamon or rice or sourdough bread (fermented breads digest well).

If your body needs some time to adapt to red meat intake then start with a couple small servings and build up over time.

Variety is good. Don't feel restricted by a diet, you can make adjustments.

HORIZONTAL AND VERTICAL DIETING:

"You can't put a 3 bedroom house on a 2 bedroom foundation".

-Toney Freeman (At the Mr Olympia press conference referring to Phil Heath)

FIRST - I like to include a variety of foods to build the foundation of the diet which I refer to as the "horizontal" diet. These foods should supply the bulk of the micronutrient requirements as well as aid in detoxifying the body, improving digestion and stimulating hormones. They should NOT cause gas or bloating or contribute to digestive disorders such as IBS, Crohn's disease, Leaky gut etc.

If you suffer from Heartburn/GERD read this article and stop taking antacids, they impair digestion, restrict nutrient absorption and compromise the immune system by allowing bacteria into the intestinal tract.

http://my.chriskresser.com/wp-content/uploads/membership-files/ebooks/Heartburn%20GERD.pdf?_ga=2.135226993.156466199.1511398158-1568129699.1507173644

***HORIZONTAL Food Foundation**

- Daily lean red meat (Bison, Top sirloin, New York, Filet, Lamb, Mince, Venison, lean ground beef)
- 2x weekly salmon (fatty fish).
- Daily raw carrot - "Naringenin" (anti-estrogen, Detox). Costco has baby carrots that are good. Eat a few a couple times a day. Don't cook them, they lose their fiber content necessary to shuttle toxins out of the system.
- <https://youtu.be/wfnH0lc2BIs>
- Daily orange (Or o.j. if specified). Anti-Estrogen, vitamins, minerals and liver stimulant (fructose).
- https://youtu.be/nU_RkeA88DY
- <https://youtu.be/R3zRPDWbjw>
- <https://youtu.be/jQw1SJ3UFww>
- Daily cooked spinach and/or peppers (Fiber, vitamins, omega 3's, calcium). Cook the spinach in ghee or beef tallow and some chicken stock for taste. Raw spinach has anti nutrients that impede absorption of the vitamins and minerals and can cause gas.
- 2-4 times Daily chicken stock/bone broth (gut health).
- Daily 4oz x 2 Fresh Pressed Pure Cranberry Juice not from concentrate (iodine, antioxidant, tannins for bladder, urinary tract protection)

http://thejuicenut.com/cranberry_juice__the_juice_nut.aspx

<https://www.amazon.com/gp/aw/d/B001LO511W>

- Daily small sweet potato (Prebiotic, Potassium, Vitamins).
- Daily cod liver oil capsules x2 (Vit A, Vit D, EPA/DHA).

https://www.amazon.com/gp/aw/d/B00OZH WX1I/ref=yo_ii_img?ie=UTF8&psc=1

*Following items are included daily only in absence of allergies.

- Daily dairy source such as Raw Milk, Hard cheese (cheddar, aged cheeses) and/or Full fat plain Greek yogurt for calcium and Vit D. Greek yogurt is optimal for probiotics. Dairy is Primarily for calcium. If you can't eat dairy then use powdered egg shells for calcium.
- Daily Whole eggs and egg whites. Always have at least one or two yolks with eggs. Always cook the whites. They contain avidin which binds the proteins.
- Daily grass fed butter (Kerrygold brand at Costco)
- Daily 10 almonds (potassium). Ideally these would be soaked/sprouted.
- Sourdough bread w/no bromide (fermented to pre-digest the anti nutrients for easier digestion and probiotic benefit).
-

NEXT - I build the rest of the diet "Vertically" for those that require more calories. I use a more restricted group of foods that can be easily consumed, digested and utilized efficiently in greater quantity.

***VERTICAL Food Construction**

- Lean red meats (Grass fed Bison, Top sirloin, New York steak, Chuck roast, Flap Steak, Filet, mince, Lamb, venison, lean ground beef)
- White Rice (w/dextrose as needed). Dextrose isn't intended to be a primary driver of calories here. It's simply to increase amylase and saliva production in the mouth making it easier to consume more rice for those who need it.
- Salt

BISON

I prefer lean cuts of red meat as your primary protein source. Bison has additional advantages over ground beef because it is grass fed and very lean. Many other cuts of lean red meats are just as beneficial with generous amounts of Iron, B12, Zinc, selenium and more. Watch the fat content of your meat. 88/12 ground beef or better is preferable. You can use lamb, venison, kangaroo, mince and many other red meats.

<https://draxe.com/bison-meat/>

WHAT ABOUT OATMEAL?

Oatmeal is a double edge sword. It has an abundance of micronutrients but it also has anti-nutrients that make it difficult to digest and absorb. The best way to eat oatmeal is to soak/ferment it overnight with yogurt or vinegar. Here's instructions and a video:

<https://www.thehealthyhomeeconomist.com/video-how-to-cook-oatmeal-the-right-way/>

Even soaked, oatmeal would be considered a horizontal foundation food used for micronutrients. Those that require a significant amount of carbohydrates would be better off using white rice to avoid digestion problems. It's dose dependent.

CHICKEN/TURKEY

Why little to no commercial chicken or ground turkey? Steak is a better source of micronutrients, particularly iron, Creatine and Vit B12.

Pasture fed chickens and their eggs have much less poly-fats but pasture fed is rare. Organic and/or Cage Free are NOT the same as Pasture fed.

Chicken and turkey are alive for a few months and eat primarily soy. The meat is high in polyunsaturated fats. Also, who knows what goes into a commercial turkey grinder (Think beaks and buttholes!)

Commercial fed cows are still weaned on mother's milk and fattened on corn. They're alive much longer, eating much more and compiling more nutrient density in their meat. They have 5 stomachs to handle the vegetable digestion and take care of most of the methane production so you don't have to!!

GRASS FED vs. GRAIN FED (CAFO)

Grass fed beef has more CLA, a better fatty acid profile (Omega 6:3) than grain fed and more omega 3's although neither one has much Omega 3's so Beef is NOT the source you would use get them (Fatty fish and Cod Liver oil are far superior options for Omega 3's).

For Example - Omega 3's

Grass fed beef - 3.5oz = 100g

Wild salmon - 3.5oz = 2,600g

Omega 3's - Grass Fed Beef

<https://www.freshbitesdaily.com/grass-fed-beef-omega-3/>

Having said that, they're both preferable to chicken so if it's a cost or availability issue then grain fed works. Not all meat is the same however. Costco's meats and meats from

quality butchers are better tasting especially when reheated. Grocery store meats use carbon monoxide to extend the shelf life and they taste like dog food when reheated.

Besides, if none of that is convincing then consider this:

“Have you ever seen a big chicken”?

CHICKEN STOCK/BONE BROTH

Stock and/or broth provides a huge benefit for digestion and gut health. I include it in my diet for that reason as well as many other helpful benefits as described in this article:

Bone Broth

<https://www.consultantnutritionist.com/General-Health-Nutrition/Traditional-Bone-Broth-in-Modern-Health-and-Disease.html>

Not all stock and broth is the same. I try to avoid ones that have these ingredients:

- Corn Starch
- Garlic
- Sugar
- Canola oil
- Chicken flavor (as a primary ingredient before broth or stock)

I like the Kirkland Organic Chicken Stock. It's not perfect but it's as close any commercial brand I've seen that's readily available.

There's a description in this article which I found promising even though it wasn't GAPS diet approved, they are the MOST restrictive diet I'm aware of:

<https://www.nourishingplot.com/2014/04/26/15-foods-from-costco-you-thought-were-healthy-but-arent/>

I drink a hot cup of Chicken Stock when I wake up in the morning. It's very soothing to my stomach whereas too much water first thing in the morning can irritate my stomach.

I add it to my signature meal, the Monster Mash, making it taste great and improves digestion.

I also cook my spinach in it along with ghee or beef tallow.

MACRO BREAKDOWN:

- Quick Weight loss (Calorie deficit)

Proteins = 1g/lb (approx 25-30%)

Carbs = 100g/day (approx 15-20%). Start with 50g-70g from fruit, then 20-30g from potato, then 20g from dairy/calcium source. This group won't need a significant amount of rice if any.

Fats = Balance of calories (approx 50-60%). These should mostly already be in the meats, eggs and dairy sources of protein.

- Lean Gains, Body Recomposition (Calorie neutral)

Proteins = 1g/lb

Carbs = 250-400g/day

Fats = 75g

- Mass Gain (calorie surplus)

Proteins = .6-.8g/lb (Protein is reduced in this group to increase appetite. Carbs are protein soaring)

Carbs = 600-1,000g/day

Fats = 100g-150g

*I don't like to go under 100g of carbs/day on training days unless there's an immediate health issue that calls for a more "Keto" style diet such as dangerously high blood pressure or blood sugars.

*Carbs are reduced on days off training. Eliminating the post workout shake and breakfast carbs (if any) is usually enough of a reduction.

*Use fattier proteins to meet your calorie needs when on low carbs such as whole eggs, steak, bacon and whole fat dairy (cheese, yogurt, milk).

*Use leaner proteins to meet macros when on high carbs to keep fats around 100g/day using lean meats like bison and top sirloin but also including a chicken breast meal and a leaner blend of whole eggs and egg whites.

*Try to eat 4-6 meals daily (Plus PWO shake).

Protein - 20-40g each meal as discussed under "PROTEIN"

*When on a calorie DEFICIT, use higher satiety foods if hunger is a problem. Proteins and fats are high satiety. Carbs like potatoes and vegetables are high satiety.

<http://www.dietandfitnesstoday.com/satiety-index.php>

*When a calorie SURPLUS is necessary and you need to stimulate appetite:

- reduce fats and increase white rice.
- Take a 10min walk after each meal
- Add dextrose to rice
- Drink 3 oz pulp free oj (fructose) with or between meals
- Eat smaller more frequent meals
- Mash your food

<http://youtu.be/3434EHu36sg>

- Salt all your meals
- Don't drink too much water w/meals
- Take HCL and Pepsin (if needed to improve digestion). 5 x 640 mg pills with steak meals. Monitor results.

<https://scdlifestyle.com/2013/10/4-common-betaine-hcl-mistakes/>

VEGETABLES:

Eat a few baby carrots with one or two meals daily. These are about the size of your pinky. More is not better.

2 meals should include a small serving (1/2 cup) of cooked vegetable such as:

*healthy low gas vegetables, like butternut squash, carrots, celery, parsley, zucchini, cucumber, bell pepper, eggplant, spinach, Swiss chard, alfalfa and small amounts of steamed potatoes.

These veggies don't commonly cause gas.

<http://flatulencecures.com/vegetables-that-cause-gas>

Possibly make an omelette out of the eggs with peppers and spinach.

The vegetable serving is in addition to the carbohydrate. I don't count vegetables in carb macros.

SAMPLE DIETS:

- Quick Weight Loss (Portion sizes adjust up or down depending on personal calorie demands)

1. 3 whole eggs - 1/2 slice of cheddar cheese - spinach/peppers (omelette) - 10 almonds, baby carrots. 3 oz cranberry juice.
2. 5 oz NY steak. 1/2 orange
3. 2 hr Before workout - 4 oz chicken - 1 small sweet potato - 3 oz oj
4. 5 oz bison, spinach, chicken stock. 3 oz cranberry juice.
5. 1/2 cup “Fage” whole fat yogurt w/baby carrots OR 3 whole eggs w/baby carrots
(Include PWO drink on training days)

- Lean Gains, Body Recomposition

1. 4 Eggs/6 whites - slice of cheddar cheese - spinach (omelette) - 10 almonds, baby carrots. 4 oz cranberry juice.
2. 8 oz bison or steak - 1 Cup rice - (Use chicken stock to make mash) - 3 oz oj
3. Repeat 2
4. 2 hr Before workout - 6 oz chicken - 1 sweet potato - 3 oz oj
5. Repeat 2 (substitute 4 oz cranberry juice for oj)
6. 12 oz Whole milk or “Fage” whole fat yogurt w/baby carrots OR 5 eggs w/baby carrots
(Include PWO drink on training days)

- Mass Gain

1. 4 eggs, 1 Cup whites, Spinach, 1 slice tillamook cheddar cheese (for natural calcium source primarily) (omelette). 2 cups white rice, dextrose, 3oz pulp free OJ, 10 almonds
 2. 12 oz grilled bison, 2.5 cups rice w/dextrose, 1 Cup chicken stock. (Monster Mash). Baby carrots. 4 oz cranberry juice.
 3. 12 oz grilled NY steak, medium sweet potato, 1 Cup rice. 3 oz OJ.
 4. Repeat 2 or 3 (just rice, no sweet potato if repeating 3).
 5. Repeat 2 or 3 (just rice, no sweet potato if repeating 3). Substitute 4 oz cranberry juice in place of oj
 6. Repeat 1, 2 or 3 (without OJ or dextrose before bed). Baby carrots.
- (Include PWO drink on training days)

DAY OFF TRAINING DIET -

Take out 400 calories in carbs or about 100g. 1/2 of that goes away with the absence of the post workout shake on off days. Keep the OJ in and reduce white rice.

You will notice fewer calories and fewer carbs on days off lifting weights.

LOGISTICS/TRAVEL TIPS:

Much of what I do for my athletes is to help them with time management and logistics by simplifying the process so they can have what they need when they need it.

When at home, Prepping meals in advance makes it easy to quickly heat up a meal when needed.

I'll cook 8 bison patties or steaks at once on the BBQ grill and put them all in a 1 gallon ziplock bag after they cool and put them in the refrigerator. They tend to stay more fresh in a ziplock than a Tupperware because I'm able to get more air out of the bag. Then I can take one out and cover it with a moist paper towel and microwave it for 2 1/2 minutes when I need a meal. Then I heat up a cup of chicken stock for 1 minute and the rice is already hot and ready in my rice cooker. I mash them all together and salt to taste and I have a meal from start to finish in less than 5 minutes.

If I need a meal or two handy while out and about during the day then I put the hot monster mash in a thermos and it stays hot for up to 8 hours.

I can also take a cold snack pack I call the "Cornucopia" which can include:

“CORNUCOPIA” (Protein Travel Pack)

- 2 Hard boiled Eggs (Costco has an organic 2-pack of boiled/peeled eggs that are delicious).
- 2 slices Cheese (cheddar and Havarti)
- Sourdough bread with grass fed butter.
- Grapes and/or orange slices
- macadamia nuts or almonds.
- Raw baby carrots
- Small Hard chocolate (magnesium)
- Raw Honey packet if desired.
-

I can double up on the portions and put them in a Tupperware or small insulated travel bag with an ice pack and keep it cold for many hours.

I use the same methods to prepare meals to eat when I travel.

When traveling, I ALWAYS stay in a hotel with a kitchenette or at least a fridge and microwave.

I'll prepare 5-10 monster mash and freeze them and put them in a checked luggage wrapped in a towel and put them in the hotel fridge when I arrive and reheat them as needed.

When I went to Samoa for a week and when I was cooking for Hafthor and Brian Shaw at the Arnold, I filled a rolling cooler full of 40 pounds of frozen bison and steak and grilled it as needed when I arrived. They had a fridge, microwave and a rice cooker in their rooms. I brought them fresh cooked bison and steak in ziplocks daily and they had hot rice and chicken stock and they each ate 4-5 pounds of bison/steak daily and 1,000g of carbs along with the other foundational foods from the Vertical Diet.

When I'm at an expo all day, I stop at Walmart and get a rolling cooler and ice to put my food in and possibly a small microwave to heat my monster mash at my booth. (Monster mash, Oranges, Baby carrots, Cranberry Juice, Hard boiled eggs, yogurt cups, pink Himalayan salt).

All of this is cheaper, more convenient and less time consuming than eating at restaurants!!

COMPENSATION

Be careful of compensation!! This is where you rest more because you train more or train harder which will negate some of your daily calorie burning. Remember that 70% of fat is burned at rest, so take advantage of what I like to call "active rest" which is just normal daily activities such as cooking, cleaning, shopping etc... NOT sitting or sleeping more because you trained that day. Continue 10 min walks after 3 meals on days off.

TRAINING:

I design training blocks with a long term outlook. I alternate hypertrophy and strength training blocks so as to keep the body responding, to provide conditioning and to minimize accumulating fatigue and joint damage.

The GOAT, Eddy Coan, only competed in Powerlifting twice a year. He used de-load weeks during and after strength blocks followed by a hypertrophy block.

I also like to include a PROGRESSIVE component in all of my training programs.

Warm Up/No Static Stretching (especially the core). Warm up doing some exercise specific dynamic movements such as jumping jacks, high knees and arm circles.

<https://mobile.nytimes.com/blogs/well/2013/04/03/reasons-not-to-stretch/?smid=fb-share>

Do not do sit ups. The core is a stabilizer, not a flexor. Its purpose is to resist movement. Train it that way with planks, side planks and "stirring the pot" daily. Dr Stuart McGill is one of the foremost authorities on the spine.

<http://youtu.be/NA1Ve7FWqTY>

Hypertrophy Training Block:

Hypertrophy training is a “pounds per hour” or “pounds per week” approach.

Every body-part should be trained at least twice per week.

Reps will be 12 (upper body) to 20 (quads).

Rest periods will be 120 seconds to start except for antagonistic supersets (Chest, 60 sec rest/Back, 60 second rest).

Loads will be 50-60% 1RM

Intensity will be 5-8 RPE (increases with each subsequent set).

Splits will also progress.

Beginning program:

Day 1 - Push (Quads/Chest/Shoulder/Tris)

Day 2 - Pull (Back/Hamstrings)

Day 3 off

Repeat

Progression will be to add a second workout daily:

Day 1 am - 1/2 of push workout (Quads/Chest/Shoulders/Tris)

Day 1 pm - Other 1/2 of push workout

Day 2 am - 1/2 of Pull workout

Day 2 pm - other 1/2 of Pull workout.

Day 3 off

Repeat.

Over time, increase volume each workout.

If you like a 7 day schedule you can do:

Day 1 - Push

Day 2 - Pull

Day 3 - off

Day 4 - Legs

Day 5 - Chest/Shoulder/Tri

Day 6 - Back/bi

Day 7 - off

Repeat

Progression would still be to move towards daily doubles.

To allow for better recover and to minimize DOMS and cumulative fatigue, I avoid exercises that hit the lumbar spine hard such as deadlifts and low bar squats.

Quads -

Banded Leg press 5 sets of 20

Leg extension or lunge 5 sets of 20

Chest -

Incline dumbbell press 4 sets of 12

Dips 4 sets of 12

Shoulders

Upright row to an Overhead press 3 sets of 10

Triceps

Overhead cable or dumbbell press movement 3 sets of 12

Back

Assisted chin (band or machine), sternum Up, body vertical 4x10

Long pulley row (minimal lower back Flexion, use arms (deep elbows) to contract lats
4x10

Dorian Rows 3x8

Hamstrings - Respond better to heavier loads, fewer reps.

Hip hinge - RDL's 3x6

Knee hinge (curl) - standing or seated. Two legs for concentric, one leg resists on eccentric 3x6

Calves - 100 bodyweight reps daily.

Quads - After warm up, pick a weight that you can do for 30 reps and only do 20. Each subsequent set with the shortened rest periods will get progressively harder due to oxygen debt and fatigue (lactic acid) until the 4th and 5th sets are close to failure.

Upper body - Use 10-15 reps as range.

We can add volume (sets and reps) and adjust rest periods and increase frequency (am/pm) as well as add weight to increase “Pounds per day/week”.

Keep track of the total pounds. We will increase pounds over time.

Keep training sessions under an hour. 40 minutes in the morning and 30 minutes at night is plenty if your rest periods are 60-90 seconds.

Avoid significant lumbar stress like heavy deadlifts or low bar squats during the hypertrophy phase. Lumbar stress will increase fatigue and can overload the CNS (central nervous system) which increases DOMS and delays recovery. To retain muscle memory of the Powerlifting movement patterns, squats and deadlifts can be done at the end of a workout with lighter weight using a trap bar for deadlifts or a high bar position for squats.

STRENGTH BLOCK:

The strength block will be a linear progression with a de-load (50%) every 4th week.

%1RM loads will increase while Frequency and volume decreases.

Week 1 - 5x5 at 60%

Week 2 - 4x4 at 70%

Week 3 - 3x3 at 80%

Week 4 - De-load week 4x4 at 50%

Week 5 - 5x5 at 70%

Week 6 - 4x4 at 80%

Week 7 - 3x3 at 90%

Week 8 - De-load week 3x3 at 50%

For competitors:

Week 9 - 3x3 at 80%

Week 10 - 2x2 at 90%

Week 11 - Rest

Week 12 - Compete

Use the competition lifts as the primary exercise. Squat. Bench. Deadlift.

The “week” can be shortened based on recovery rate ie. Squatting every 5 or every 4 days initially then adding a day of rest as the weights get heavier. Deadlifts are the only exception. After technique is properly learned, Less is more when pulling heavy. De-loads are still taken after every 3 heavy sessions.

COMPLIANCE:

I started with sleep and I’m finishing with compliance. The single most important part of being successful with any diet or training program (or anything for that matter) is “Compliance”. Those who fail, simply stopped complying with the program. They quit. It may be for any number of legitimate or not so legitimate reasons but the failure is the same either way.

Consistently executing your plan is the only way to succeed. It’s 1% inspiration and 99% perspiration.

That’s why the program needs to be simple and sustainable. It needs to become part of your lifestyle without detracting from work, family and fun.

“What’s the best diet, the one you’ll follow”. “What’s the best exercise, the one you’ll do”.
-Stan Efferding

After designing an effective and easy to follow diet and training program, keeping track of it is necessary and beneficial for compliance.

I use a spreadsheet to check off the things I need to do daily to optimize results. When I’m not getting results or performance is suffering, a quick glance at the spreadsheet often explains the problem. I put the days of the month across the top and a list of compliance items on the side. This serves as a simple reminder or daily to-do list.

Here’s an example of things you may choose to track on a daily basis:

DAILY TRACKER - SPREADSHEET

- Bodyweight
- Vit D3
- Cod liver oil
- Other supplements (Vit B, ZMA etc)
- Daily carrot
- Daily orange(s)
- Daily Cranberry juice (how many 4oz servings using tick marks)
- 10 min walks (how many using tick marks)
- Meals (how many using tick marks)
- Sleep (hours, such as 10-6)
- Sleep interruptions (how many times I woke up)
- Bodypart trained (a.m. and p.m. if applicable). Top lift written vertically as a short note at the bottom of the column
- Medication (ie Testosterone, thyroid, BP meds, etc. - each listed separately).

Stan Efferding

TheKooler.com

As seen on "Shark Tank"

<https://www.facebook.com/SharkTank/videos/1438662632811537/>

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