### THE 8-WEEK BLUEPRINT TO A HEALTHY, LEAN PHYSIQUE



# **Lean Quick Principles**

Nutrition & Lifestyle Guidelines XN2020

### Disclaimer

Please read this disclaimer prior to following the Lean Quick Principles (referred to as "this program"). All resources included in this program are intended for educational purposes only. This information should not replace individualized nutrition or medical advice provided by your doctor, registered dietitian, or any other medical professional. Always seek the assistance of your own medical provider to answer any questions you have about your individualized nutrition needs, medical conditions and health goals. While this program was developed using wellness-based guidelines, nutrition-related outcomes are highly individualized. Therefore, this program cannot guarantee weight loss, improvements in medical conditions or any other health outcomes. Although this program has been developed carefully by a registered nutritionist, we cannot be held responsible for any errors or omissions. We accept no liability for any loss or damage that may occur from following this plan.





### The Program: How it works

Over the next 4 to 8 weeks we will be progressively applying principles of nutrition and lifestyle to your daily routine, until we achieve your goals. These tweaks to your nutrition and habits will be applied at a rate of 1-2 per week, for 4-8 weeks. Depending on how readily you adapt to change, you will have the option to progress through the program over a shorter period. These tweaks will be more pronounced in the earlier weeks, becoming less so as you progress through the Lean Quick Program.

We will work together to make these tweaks as manageable and as sustainable as possible. This is not intended to be a prescribed diet, but a set of principles that can be moulded to fit your individual needs and preferences. You can have fun with it, experiment, whilst simultaneously promoting your health and longevity.

### **Summary of Phase 1 to 4:**

Number	Phase	
1	Transition toward Whole Food Plant-Based	
	Diet	
2	Sleep Hygiene & Hydration	
3	Nutrient timing & Natural Metabolism Boosters	
4	Front Loading Calories & Mindfulness	

The length and content of each phase may vary according to your individual needs and progress. Each phase should be practiced throughout the entire program- you will strive to adhere to a whole food plant-based diet for not only phase 1, but through all phases.



### Phase 1

#### Goal:

1. Transition as far as possible toward a whole food plant-based diet (WFPB).

Plant-based diets exist on a spectrum from least to most plant-based:

Omnivorous> Flexitarian > Pescatarian > Vegetarian> Vegan

Individuals who follow a plant-based, vegetarian or vegan diet have lower body mass indexes, lower weight gain over time and lower calorie intake compared to that of those following non-plant-based diets. Intervention studies consistently demonstrate the ability of a plant-based diet to produce weight loss. Plant-based diets also offer a superior level of diet quality than other weight loss dietary approaches, with similar levels of acceptability and adherence.

#### How:

To shift your diet along the spectrum toward plant-based, over the course of the next 2 weeks:

- 1. Increase your daily intake of whole plant foods
- 2. Eliminate or reduce your consumption of animal and processed foods.
- Processed foods being those that contain added salt, oil, sugar, preservation or artificial flavours.
- Strive to adhere to these guidelines at least 80% of the time: 20% or 4 meals a week can be 'free meals' where you may eat non- WFPB if you wish.
- Don't worry if you don't manage to include all food types detailed below, this a goal we will strive towards over the coming weeks.
- If you accidentally eat non-WFPB foods, do not stress over it, just get back on track as soon as you can.



### Whole Food Plant-Based (WFPB) Diet

#### Include:

Increase your daily intake of these foods to a minimum of:

- Berries: 1 serving (½ cup fresh or frozen)
- Nuts and seeds: 1 serving (¼ cup)
- Fruit: 3 servings (1 medium sized fruit/ 1 cup cut up fruit)
- Vegetables: 4 servings (1 cup leafy greens ½ cup raw or cooked nonleafy veg)
- Wholegrains: 3 servings (½ cup grains: oats, rice, barley, whole wheat pasta / 1 slice bread)
- Legumes: 2 servings (1 cup peas, lentils, beans, tofu, tempeh/ ¼ cup bean dip-hummus)

A useful free app to aid this is the 'daily dozen' app from the App Store: Search 'Dr Greger daily dozen'.

#### **Exclude:**

- <u>Animals</u>
  - o (Beef, chicken, pork, lamb etc.)
- Animal products
  - (Dairy; milk, butter, cheese, eggs, honey.)
- Minimise processed or refined foods
  - o (Salt, oil, sugar (SOS).)

When planning meals, be mindful that it is possible to adapt any recipe to make it plant-based. Think of your favourite meals and find appropriate substitutes for the animal parts. All major supermarkets now have a comprehensive range of plant-based alternatives.

### Oil free cooking:

When cooking resist adding oil, instead use water or vegetable stock (see link below). Or bake, instead of frying.

https://wholesomelyelle.com/blog/2018/3/1/how-to-cook-without-oil



### Sample day of WFPB meals

Table 1 Definitions of the WFPB diet and example meals compared to Omnivorous diet

Dietary group	Definitions of dietary patterns	Example day meals
Omnivorous diet	Contains all food groups.	Porridge made with milk topped with bananas.  Cheese and ham sandwich  Chicken curry with brown rice  Ice cream
WFPB diet	Contains no animal products (meat, fish, poultry, eggs, or dairy) and emphasizes plant-based foods, such as fruits, vegetables, whole grains, legumes, nuts and seeds.	Porridge made with soy milk topped with bananas  Hummus and falafel sandwich  Chickpea and cauliflower curry with brown rice  Blended frozen bananas (nice cream)

As evident in 'Table 1', it is easy to adapt your current meals and recipes to their WFPB equivalents. Initially, this may require some thought and care, but will become easier with time and practice-trust the process.

Do not over burden yourself by making overly complex recipes. To begin with, keep it simple. Use 'Table 2' below to modify recipes you are already familiar and comfortable with.

Overtime, your palette will adjust to the absence of added salt, oil and sugar, better enabling you to taste and enjoy whole foods such as fruit.



### **Easy plant-based swaps**

Table 2 Commonly consumed animal products with plant-based alternatives

Animal product:	Plant-based swap:	
Milk	Soy milk Oat milk Almond milk	
Ground (Minced) beef	Lentils Grated mushrooms Soya mince Plant-based ground beef substitute	
Chicken	Chickpeas Sliced mushrooms Tofu Plant-based substitute	
Burgers	Vegetable burger Plant-based burgers	
Sandwich/wrap fillers Spreads	Falafel Hummus	
Honey	Maple syrup Date Syrup	
Butter or Mayonnaise	Avocado Plant-based spread/mayo	
Parmesan cheese	Nutritional yeast	
Oil	Vegetable Broth Water	

<sup>\*</sup>always check ingredients lists, particularly for milk and egg.

<sup>\*</sup>oil is not an animal product but not WFPB



To help get you started, here are some simple meal ideas. Remember, these are just suggestions-adapt them, or find alternate plant-based recipes- simply search the name of the recipe you desire, followed by the term 'whole food plant-based', 'plant-based' or 'vegan'. Be sure to follow @leanquickrecipes on Instagram for more ideas.

### Meal ideas

#### **Breakfast:**

**Porridge** 

Topped with berries, nuts and seeds.

Whole grain toast & avocado

Topped with cherry tomatoes, chickpeas and mixed seeds.

<u>Granola</u>

With dried berries and nuts

Whole grain toast & peanut butter

Topped with sliced banana & chia seeds

Smoothie

Banana, peanut butter, almond milk, berries, spinach and flaxseeds

### Lunch:

Buddha bowl

Mixed grains with mixed beans or chickpeas, salad or veg

Whole grain pasta

In sauce with veg and beans.

**Baked potato** 

Sweet or white, stuffed with hummus or avocado with kale and spinach salad.

Beans on whole grain toast

With a green smoothie

Whole grain wrap

Stuffed with falafel and greens and hummus or avocado

Soup & whole grain roll

Your favourite plant-based recipe



### Dinner:

### Edamame stir fry

Whole grain noodles with mixed vegetables and soy sauce

Chickpea coconut curry

With pearl barley and mixed vegetables.

Portobello Mushroom fajitas

With brown rice and salad

Vegetable lasagne

with dry roast new potatoes and salad

**Burgers** 

With homemade wedges and veg

Pizza

Topped with all your favourite veg

Bean chilli

With brown rice and veg

Lentil shepherd's pie

Served with garlic greens

**Tacos** 

Stuffed with rice, soya mince, salsa, avocado, onions and greens

Buddha bowl

Mixed grains with mixed beans or chickpeas, salad or veg

Nut roast

With roast potatoes and roast vegetables

Sides:Snacks:Salads/VegDried fruitWedgesNuts and seedsHummus and vegFruit



### Shopping and stocking the cupboards

For convenience, it is advisable to stock up on frozen fruit and vegetables, as well as tinned legumes (baked beans, bean salad, chickpeas etc) and wholegrains (pasta, rice, noodles). Pre-cooked wholegrains in pouches are also useful.

### **Cupboards**

<u>Beans (dried and/or tinned):</u> black beans, chickpeas, kidney beans, black-eyed beans, lentils, cannellini beans.

Dried fruit: dates, raisins, goji berries.

Grains: red, brown or black rice, quinoa, rolled oats, barley.

Nuts and seeds: unsalted cashews, walnuts, pecans, almonds, flaxseeds, sesame seeds.

Pasta and noodles: 100% whole grain or bean-based spaghetti, pasta, noodles

Bread and tortillas: 100% whole grain and corn.

#### Fresh

<u>Root Vegetables:</u> onions, garlic, carrots, sweet potatoes.

Fruit: bananas, lemons, limes, seasonal fruit.

<u>Leafy greens:</u> kale, spinach, rocket, fresh herbs

Salad ingredients: red cabbage, cucumber, tomato, pepper, avocado.

Others: green beans, broccoli, cauliflower, mushrooms, asparagus.

### Frozen

Vegetables: greens, medleys, edamame, stir fry mix.

<u>Fruit:</u> mixed berries, blueberries, strawberries, cherries, mangoes.



The application of plant-based diets to weight loss may confer improved dietary quality, given the increased intake of health-promoting dietary substances, such as antioxidants, fibre, phytonutrients (carotenoids, saponins, flavonoids and isoflavones), vitamins B<sub>1</sub>, A, C and E and minerals potassium and magnesium. Further bolstered by a reduced intake of disease-promoting substances, such as total fat, saturated fat, trans fat, oxidants and pollutants.

Despite these improvements, following a strictly plant-based diet may increase the risk of certain nutritional deficiencies. Micronutrients of concern include vitamins  $B_{12}$ , D, calcium, omega-3 fatty acids and the minerals iron and zinc; given their poor bioavailability. These concerns will be easily avoided, through the inclusion of fortified foods and plant foods high in the vitamins and minerals of concern:

#### **B**<sub>12</sub>

Whilst vegan diets contain virtually no  $B_{12}$ , clinical symptoms are surprisingly uncommon. Body stores of  $B_{12}$  are sufficient to last for 2-5 years, with some being produced by bacteria in the intestine; though bioavailability in uncertain. Provided your stores were adequate prior to following the Lean Quick Principles, deficiency is unlikely.

If intending to continue a plant-based diet, or if you are aged over 50, it is advisable to <u>take a B<sub>12</sub> supplement daily</u>.  $B_{12}$  fortified foods, such <u>as milk substitutes</u>, <u>breakfast cereals</u>, meat substitutes, and  $B_{12}$ —fortified nutritional yeast should also be incorporated.

#### Vitamin D

Plant-based diets may increase the risk of vitamin D deficiency if living at high altitudes. Mushrooms can be a good source of vitamin D if grown in UVB light. Vitamin D–fortified foods include soy milk, breakfast cereals, consumption of which are encouraged, as is a <u>D3 supplement</u>.

#### Calcium

Adopting a plant-based diet could increase the risk of calcium deficiency, given that many western countries obtain a substantial amount of total daily calcium intake from dairy products. The inclusion of plant sources of calcium, <u>like green vegetables</u> (spinach, broccoli, peas, cabbage), legumes, nuts (almonds, walnuts), and dried figs is encouraged. As are calcium-fortified foods, such as cereals, soy milk and tofu.

### Omega-3

Omega-3 ( $\alpha$ -linolenic acid or ALA) is an essential fatty acid that cannot be synthesised and must be obtain via the diet, though deficiency is rarely seen (except in famine and extreme fat malabsorption). Plant-based sources of ALA, <u>from flaxseed and walnuts</u> can be converted to other essential omega-3 fatty acids like DHA and EPA. Deficiency can be avoided by the simple inclusion of nuts and seeds in the diet.

### Iron

Despite the non-haem iron in plants being less bioavailable than the haem iron found in meat, risk of iron deficiency is similar for plant-based and omnivores. This may result from the increased consumption of vitamin C in plant-based diets, which greatly boost non-haem iron absorption. Consumption of plant foods with relatively high bioavailability of non-haem iron, like, beetroot, broccoli, pumpkin, citrus and tomato are encouraged.



#### Zinc

Plant-based diets are high in phytates, a component of cereal grains, nuts and legumes, which bind zinc and reduce its bioavailability. Whilst vegans have a lower zinc intake than omnivores, they do not exhibit lower immunocompetence. Consumption of plant-based sources of zinc are strongly advised pumpkin seeds, dark chocolate, garlic, chickpeas.

### References

- Craig, W. J. (2009). Health effects of vegan diets. *American Journal of Clinical Nutrition, 89*(5), 1627S-1633S. doi:10.3945/ajcn.2009.26736N
- Farmer, B. (2014). Nutritional adequacy of plant-based diets for weight management: observations from the NHANES. *American Journal of Clinical Nutrition, 100*(1), 365S-368S. doi:10.3945/ajcn.113.071308
- Harland, J., & Garton, L. (2016) An update of the evidence relating to plant-based diets and cardiovascular disease, type 2 diabetes and overweight. *British Nutrition Foundation Nutrition Bulletin*, 41, 323–338. doi: 10.1111/nbu.12235
- Mann, J. & Truswell, S. (2017). *Essentials of Human Nutrition*. (5<sup>th</sup> ed.). London, United Kingdom: Oxford University Press.

#### **Resources:**

Lean Quick

https://www.leanquick.org/

**PETA** 

https://www.peta.org/living/food/sample-two-week-vegan-meal-plan/

**Vegan Society** 

https://www.vegansociety.com/resources/lifestyle/shopping/vegan-meal-plan

Forks over knives

https://www.forksoverknives.com/

Veganuary

https://veganuary.com/starter-kit/vegan-meal-plans/

Straight up food

http://www.straightupfood.com/blog/

Viva vegan

https://www.viva.org.uk/

Plant based news

https://www.plantbasednews.org/



### **Sample Meal Plan and Recipes**

The meal plan and recipes that follow are not a prescription and do not need to be followed. They are merely examples; simple recipes which may be used as a starting point or incorporated when you find yourself short on time. Use the guidelines above to adapt your current eating habits to a whole food plant-based dietary pattern.

### Meal Plan

Day	Breakfast	Lunch	Dinner
1	Porridge or Overnight Oats	Leftovers or Buddha	Stir fry
		Bowl	
2	Porridge or Overnight Oats	Leftovers or Buddha	Tacos
		Bowl	
3	Porridge or Overnight Oats	Leftovers or Buddha	Curry
		Bowl	
4	Porridge or Overnight Oats	Leftovers or Buddha	Fajitas
		Bowl	
5	Porridge or Overnight Oats	Leftovers or Buddha	Pitta pizza
		Bowl	
6	Porridge or Overnight Oats	Leftovers or Buddha	Burgers
		Bowl	
7	Porridge or Overnight Oats	Leftovers or Buddha	Shepherd's pie
		Bowl	



### Shopping list

Produce

spinach

kale

1 avocado

4 Portobello mushrooms

6 large potatoes (white/sweet)

2 medium sweet potatoes

5 red onions (fresh or frozen)

garlic cloves (fresh or frozen)

2 cauliflowers (fresh or frozen)

2 peppers (fresh or frozen)

peas or green beans (fresh or frozen)

stir-fry mix (fresh or frozen)

edamame bean (fresh or frozen)

mushrooms (fresh or frozen)

frozen mixed veggies

frozen berries

Grocery

vegetable stock (optional)

reduced salt soy sauce

1 can black beans

2 can chickpeas

1 can chopped tomatoes

1 can coconut milk (reduced fat)

Salsa

tomato puree

black olives

uncooked lentils (green/brown)

plant-based milk

wholegrain noodles

taco shells

wholegrain wraps

oat milk

flaxseeds

Spice

paprika

garlic granules

onion granules

mild chilli powder

cumin

ground black pepper

mustard powder

cayenne pepper

mixed herbs

garam masala

chilli flakes



## Overnight Oats

SERVES: 1 TAKES: 5 minutes prep + overnight

½ cup oats

1 cup water or plant-based milk (soy/almond etc)

1 tbsp ground flaxseeds

- 1. Combine the oats and plant-milk in a seal tight container and refrigerate overnight.
- 2. When ready to eat, add more milk if needed, add toppings of your choosing; I recommend flaxseeds and berries!

Optional add-ins/toppings:

**Berries** 

Other fruit

1 tbsp nut butter (peanut/almond)

1 tbsp seeds (flax/chia/pumpkin etc)

½ tsp vanilla extract

1 tsp date or maple syrup



### Oatmeal (Porridge)

SERVES: 1-2 TAKES: 10 minutes

½-1 cup oats

1-2 cups water (2:1 liquid: oats)

½ -1 cup frozen berries

1 tablespoon ground flaxseeds

- 1. Combine the oats and water and cook in the microwave or on the hob. Once cooked to your preference, stir in the flaxseed (and cinnamon and cocoa powder if using).
- 2. Top with the remaining ingredients (frozen berries etc).

Make it your own and experiment with your favourite fruit, nuts, seeds and swirls of nut butter, peanut, almond etc.

Optional add-ins:

1-2 tbsp unsweetened cocoa powder

½ tsp cinnamon

1 tbsp pumpkin seeds

½ cup goji berries or raisins

1 tablespoon date puree



### Buddha Bowl

SERVES: 1 TAKES: 5-10 minutes prep

⅓ -1 pouch cooked wholegrain (brown rice, mixed grains, quinoa etc)
 ⅙ can of legumes or pulses (chickpeas, lentils, mixed beans etc)
 Generous serving of leafy green salad or mixed vegetables
 Topped with your favourite spices

- 1. Place all ingredients in a large bowl.
- 2. Season with oil-free dressing and herbs and spices.

Optional add-ins/toppings:
Chilli flakes
Lemon juice & apple cider vinegar
Balsamic vinegar
Season the legumes and roast until crisp



### Plant Dust

MAKES: ~2 cups TAKES: 5 minutes

This multi-purpose seasoning is great for wedges, tacos and fajitas.

½ cup paprika

1/4 cup garlic granules

¼ cup onion granules

1/4 cup mild chilli powder

¼ cup cumin

2 tbsp ground black pepper

1 tbsp mustard powder

1 tbsp cayenne

1. Combine and mix all ingredients in an air-tight container.

If making a small batch, substitute a tablespoon for a cup and teaspoon instead of tablespoon.



# Wedges

SERVES: 2 TAKES: 50 minutes

- 2 large potatoes (white or sweet)
- 2 tablespoons liquid (water or vegetable stock)
- 2 teaspoons Plant Dust
  - 1. Slice the potatoes in half (length ways), then half again until desired wedge shape is acquired.
  - 2. In a bowl add the potatoes, water (or stock) and magic dust and mix.
  - 3. Space out evenly, skin down on a lined baking tray, and bake until browned (~45 minutes).



### Stir-fry

SERVES: 4 or 2 generously TAKES: 15 minutes

2 nest of wholegrain noodles (125g)

½ cup vegetable stock or water

½ cup Reduced salt soy sauce

1 tsp Chilli flakes

5 cups stir-fry mix or:

1 cup onion\*

1 cup peppers\*

1 cup edamame\*

2 cup mushrooms\*

\*fresh/frozen

- 1. Place noodle in a boil of boiling water, cover and soak for 6 minutes (noodles may vary, see cooking instruction).
- 2. Heat stock or water in a large frying pan and add the vegetables at a high heat for 5 minutes.
- 3. Drain the noodles and add to the pan, cook until excess water has evaporated.
- 4. Add the soy sauce, chilli flakes and serve.

Optional add-ins:

1 cup tofu

1 cup tempeh



### Tacos

SERVES: 2 TAKES: 15 minutes

Taco shells (or wholegrain wraps)

½ cup liquid (vegetable stock or water)

1 tbsp Plant Dust

1 400g can black beans

2 cups cauliflower

1 cup peppers

1 cup onion

2 cups greens (spinach/kale)

1 avocado

Salsa

- 1. Heat the liquid in large pan, add all veggies and black beans, cook until softened (~5-10 minutes).
- 2. Add the magic dust and cook further (~2 minutes).
- 3. Cook taco shells according to instructions, then add the seasoned veg.
- 4. Top with salsa, avocado and greens.

Serve with your favourite wholegrain (brown rice, barley etc).



## Coconut Cauliflower Curry

SERVES: 2 TAKES: 20 minutes

1 cup liquid (water or broth)

1 onion (red or white)

2 cloves garlic

1 head cauliflower

200g peas (or green beans, fresh or frozen)

1 can chickpeas

1 can chopped tomatoes

1 can coconut milk (reduced fat)

2 teaspoons garam masala

1 teaspoon cumin

- 1. In a large pan bring the liquid to a boil and add onion garlic, cooking until tender (3 minutes).
- 2. Add the pepper and spices. Add the cauliflower (trimmed to small florets) chickpeas, tomatoes, coconut milk and peas. Cover and bring to the boil, then reduce the heat and simmer (10 minutes).
- 3. When the vegetables are tender, break up a quarter of the mixture using a blender (hand-held/conventional) or a masher.
- 4. Serve over your favourite cooked wholegrain (brown rice or barley).



### Portobello Mushroom Fajitas

SERVES: 2 TAKES: 15 minutes

4 wholemeal wraps

4 Portobello mushrooms (or ~2 cup frozen)

1 onion (or ~1 cup frozen)

1 pepper (or ~1 cup frozen)

½ cup vegetable stock (or water)

1 tablespoon Plant Dust

2 cups of spinach (~2 handfuls)

- 1. Heat the stock/water in a large pan and add the pepper onion and mushrooms (~5mins).
- 2. Add the seasoning and continue to cook for (~2mins).
- 3. Cover wraps with spinach, top with fajita mix, wrap and serve.

Serve with brown rice and vegetables.



### Pitta-Pizza

SERVES: 2 TAKES: 15 minutes

4 wholemeal pitta breads

4 tablespoons tomato puree

1 small red onion

1 cup (~4) mushrooms

1 cup (~1) peppers

½ cup (~8) black olives

1 teaspoon chilli flakes

- 1. Pre-heat the oven to 220°C.
- 2. Arrange pitta breads on a baking tray, cover one side with tomato puree.
- 3. Slice the onion, mushrooms, and peppers; press into the puree.
- 4. Bake until base is browned (~10mins).
- 5. Top with olives and chilli flakes

Make it your own, experiment with different base sauces and toppings; vegetables, herbs etc. Serve with wedges or baked potatoes with your favourite veg or salad!



### Sweet Potato Burgers

SERVES: 4 or 2 generously TAKES: 40 minutes

2 medium sweet potatoes

1 can cooked chickpeas, drained

2 teaspoons Plant Dust

- 1. Preheat the oven to 220°C. Zap the sweet potatoes in the microwave (or bake in oven) until soft.
- 2. Scoop the insides into a large bowl, add the drained chickpeas and plant-dust and mash together.
- 3. Form 4 patties from the mixture and place onto a lined baking tray, and bake for 30 minutes, turning once.
- 4. Once cooked, build your burger the way you like (bun, wrap, greens, onion, smashed avocado, mustard etc) and serve with wedges.



### Shepherd's Pie

SERVES: 6 or 4 generously TAKES: 80 minutes

### Filling:

1 medium onion, diced

2 cloves garlic, minced

1½ cups uncooked lentils (green/brown)

4 cups liquid (vegetable stock/ water)

1 tsp dried herb (thyme etc)

3 cups frozen mixed veggies (peas, carrots, green beans, and corn)

### Topping:

6 large potatoes (white/sweet)

½ cup plant-based milk

- 1. Chop potatoes and bring to boil, then simmer until soft (~20-30 minutes). Drain, then mash with plant-based milk (and mustard if using).
- 2. Whilst potatoes are cooking, preheat oven. In a large pan sauté the onion and garlic in a splash of liquid (~5 minutes).
- 3. Add the lentils, liquid and herbs to the pan and simmer ~35minutes. Add the frozen veg in the last 10 minutes of cooking. Add 2 tablespoons of mash to mix to thicken (if required).
- 4. Add the filling to a baking dish (8x8inch or larger), top with mash and bake ~15 minutes. Bake over a baking sheet; to catch overflow.

### Optional add-ins:

1 tablespoon English mustard

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### Phase 2

### Goals:

- 1. Improve circadian system health to promote health and fat loss (sleep quality)
- 2. Optimize Hydration

#### How:

### 1. Sleep hygiene

- Get up at the same time every day (early to bed, early to rise)
- Sleep during the night, be active during the day
- Aim for at least 7 hours on average every night
- Short siestas in the day are fine (20 mins)
- Avoid exercise 2 hours before bed
- Avoid eating 2 hours before bed
- No screens 2 hours before bed
- Sleep in total darkness when possible blackout the room or wear a sleep mask
- Ensure you will not be disturbed- earplugs, phone off or aeroplane mode, away from bed
- Wear socks to bed (known to quicken time taken to fall asleep, and helps prevent waking)

### 2. Hydration

- Preload with water 2 cups of water before each meal
- 3 cups green tea throughout the day
- At least 9 cups of unsweetened beverages a day (covered by preload and green tea)

# 3 Sta

### Why:

### Sleep

Good sleep hygiene, or your behaviours and practices that help you achieve high-quality sleep, are paramount to a healthy life and body composition. Getting inadequate or poor-quality sleep can increase your hunger hormones and decreases your hormones that suppress appetite. Increasing the likelihood of poor dietary choices when tired. Chronic sleep deprivation has also been associated with impaired glucose tolerance and increased cortisol levels. Aim for 7 hours of uninterrupted sleep each night to reduce your risk of cancer, stroke, heart disease and to promote longevity.

Sleep is crucial to physically and psychologically health, but several factors have been identified as interfering with enough sleep, including the use of electronic media devices. These days, most individuals have at least 1 such device in their sleep environment, with most used near bedtime. Such use is associated with "inadequate sleep quantity and quality, with resultant excessive daytime sleepiness."

In addition to pushing back bedtimes and overstimulation, the light emitted from these devices may affect circadian timing, by interfering with the production of melatonin. The sleep hormone melatonin is produced in greater quantities as soon as the sun goes down, a process which is disrupted by using screens as the artificial light at night may confuse your brain.

If weakening our circadian rhythm can cause weight gain, strengthening it may facilitate weight loss. Regular morning meals can give can aid these daily biological rhythms, but a larger contribution comes from our exposure to bright morning light.

Researchers found that increased evening and night-time light exposure correlated with a subsequent increased risk of developing obesity over time. Noting that the odds of obesity trended with higher night-time light exposure independent of sleep duration (participants weight gain wasn't because they slept less).

Light exposure from getting outdoors in the morning, even on an overcast day, is correlated to lower body weight, compared to typical office lighting.

### **Hydration**

The Beverage Guidance Panel ranked beverage categories from best to worst. Soda ranked last, and whole milk was grouped with beer, with a recommendation for zero ounces a day. Tea and coffee—preferably without creamer or sweetener—tied as the number-two healthiest beverages, second only to water, the top-ranked drink.

Not drinking enough water appears to be associated with such problems as falls and fractures, heat stroke, heart disease, lung disorders, kidney disease, kidney stones, bladder and colon cancers, urinary tract infections, cavities, decreased immune function, and cataract formation.

A Harvard University study of nearly 48,000 men found that bladder cancer risk decreased by 7 percent for every extra daily cup of fluid consumed, and a high intake of water—say, eight cups daily—may reduce risk by about 50 percent, potentially saving thousands of lives.

The original Adventist Health Study, involving 20,000 men and women, found that those who drank five or more glasses of water daily had about half the risk of dying from heart disease compared to

those who drank two glasses or less. About half the cohort consisted of vegetarians, so they were getting extra water by eating more fruits and vegetables. As in the Harvard study, this protection appeared to remain even after controlling for factors such as diet and exercise, suggesting that water may play a causal role, perhaps by improving blood flow.

Authorities from Europe, the U.S. Institute of Medicine, and the World Health Organization recommend about 8 to 11 cups of water a day for women and 10 to 15 cups for men. This includes water from all sources, not solely beverages. We get about 4 cups from the food we eat and the water our body produces on its own, so the guidelines roughly translate into a daily recommendation of drinking 4 to 7 cups of water for women and 6 to 11 cups for men (assuming only moderate physical activity at moderate ambient temperatures).

#### References

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### THE 8-WEEK BLUEPRINT TO A HEALTHY, LEAN PHYSIQUE



# **Lean Quick Principles**

Nutrition & Lifestyle Guidelines XN2020

### Disclaimer

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### Phase 3

### Goals:

- 1. Optimise circadian rhythms and fat loss through intermittent fasting
- 2. Use natural compounds to elevate metabolism and fat loss

### How:

### 1. Time-restrict your eating

- Confine eating to a daily window of time of your choosing. This window must under 12 hours in length, that you can stick to seven days a week. Starting before 7pm.
- Begin with a 12-14 hour fast
- Preload calories early in the day

### 2. Incorporated spices daily

- Include more spices in your daily recipes, including but not limited to:
- Cumin ¼ tsp (or black cumin)
- Garlic powder ¼ tsp
- Ground ginger or cayenne pepper ¼ tsp



Why:

### 1. Time-restrict your eating

The reason many blood tests are taken before eating after an overnight fast is that meals can tip our system out of balance, bumping up certain biomarkers for disease such as blood sugars, insulin, cholesterol, and triglycerides. Yet fewer than 1 in 10 Americans may even make it 12 hours without eating. As evolutionarily unnatural as eating three meals a day is, most of us are eating even more than that. One study using a smartphone app to record more than 25,000 eating events found that people tended to eat about every 3 hours over an average span of about 15 hours a day. Might it be beneficial to give our bodies a bigger break?

Time-restricted feeding is "defined as fasting for periods of at least 12 hours but less than 24 hours." This involves trying to confine calorie intake to a set window of time, typically 3–4 hours, 7–9 hours, or 10–12 hours a day, resulting in a daily fast lasting 12-21 hours. When mice are restricted to a daily feeding window, they gain less weight even when fed the exact same amount. Rodents have such high metabolisms, though, that a single day of fasting can starve away as much as 15 percent of their lean body mass. This makes it difficult to extrapolate from mouse models. You don't know what happens in humans until you put it to the test.

The drop-out rates in time-restricted feeding trials certainly appear lower than most prolonged forms of intermittent fasting, suggesting it is more easily tolerable. But does it work? If you have people even just stop eating between 7 p.m. and 6 a.m. for two weeks, they lose about a pound each week, compared to no time restriction. Note: no additional instructions or recommendations were given on the amount or type of food consumed; no gadgets, calorie counting, or record-keeping. They were just told to limit their food intake to the hours of 6 a.m. through 7 p.m., a simple intervention, easy to understand and implement.

The next logical step was to try putting it to the test for months instead of just weeks. Obese men and women were asked to restrict eating to the eight-hour window between 10 a.m. and 6 p.m. Twelve weeks later, they had lost seven pounds. This deceptively simple intervention may be operating from several different angles. People tend to eat more food later in the day, and higher-fat foods later in the day. By eliminating eating in the late evening hours, one removes prime time snacking on the couch, a high-risk time for overeating. And indeed, during the no-eating-after-7-p.m. study, the subjects were inadvertently eating about 250 fewer calories a day. Then, there are also the chronobiological benefits of avoiding late-night eating.

The exact same number of calories at dinner is significantly more fattening than the same number of calories eaten at breakfast. Calories in the morning cause less weight gain than the same calories given in the evening. A diet with a bigger breakfast causes more weight loss than the same exact diet with a bigger dinner. Night-time snacks are more fattening than the same snacks in the daytime. Thanks to our circadian rhythms, metabolic slowing, hunger, carbohydrate intolerance, triglycerides, and a propensity for weight gain are all things that go bump in the night.

What about the fasting component of time-restricted feeding? There is already the double benefit of fewer calories and avoiding night-time eating. Does the fact that you are fasting for 11 or 16 hours a day play any role, considering the average person may only make it about 9 hours a day without eating? How would you design an experiment to test that? What if you randomized people into two groups, and forced both groups to eat the same number of calories a day and both to eat late into the evening, but with one group fasting even longer—20 hours? That is exactly what researchers at the USDA and National Institute of Aging did.

Men and women were randomized to eat three meals a day, or to fit all those same calories into a four-hour window between 5 p.m. and 9 p.m. and fast the rest of the day. If the weight-loss benefits from the other two time-restricted feeding studies was due to the passive calorie restriction or avoidance of late night eating, then presumably both these groups should end up the same, because they're both eating the same amount, and they're both eating late. But that is not what happened. After eight weeks, the time-restricted feeding group ended up with nearly five pounds less body fat. About the same number of calories, but they lost more weight. A similar study with an eight-hour window resulted in three pounds more fat loss. So, there does seem to be something to giving your body daily breaks from eating around the clock.

Because that four-hour window was at night, though, they suffered the chronobiological consequences—significant elevations in blood pressures and cholesterol levels—despite the weight loss.

Time-restricted feeding, where you try to squeeze the same amount of eating into a narrow evening window, has benefits compared to eating in the evening and earlier in the day—but also has adverse effects, because you're eating so much so late.

The best of both worlds was demonstrated in 2018—time-restricted feeding into a narrow window earlier in the day. Individuals randomized to eat the same food, but just in an 8 a.m. to 3 p.m. eating window, experienced a drop in blood pressures, oxidative stress, and insulin resistance— even when all the study subjects were maintained at the same weight. Same food, same weight, but with different results. The drops in blood pressures were extraordinary: from 123/82 down to 112/72 in five weeks—comparable to the effectiveness of potent blood-pressure drugs.

The longest study to date on time-restricted feeding only lasted 16 weeks: a pilot study with no control group that only involved eight people. But the results are still worth noting. Overweight individuals who, like most of us, were eating more than 14 hours a day, were instructed to stick to a consistent 10- to 12-hour feeding window of their own choosing. On average, they were able to successfully reduce their daily eating duration by about 4.5 hours, and within 16 weeks they had lost seven pounds. They also reported feeling more energetic and sleeping better. This may help explain why all participants voluntarily expressed their interest in continuing the time-restricted feeding on their own, even after the study ended. You do not often see that after weight loss studies. Even more remarkably, eight months later, they retained their weight loss and improved energy and sleep. At the one-year point, maintained their boosted energy and sleep, and kept the weight off, all from one of the simplest of interventions: just by sticking to a consistent 10- to 12-hour feeding window of their own choosing

How did it work? Even though they were not told to change nutrition quality or quantity, they appeared to unintentionally eat hundreds of fewer calories a day. With self-selected time frames, you would not necessarily think to expect circadian benefits, but because subjects were asked to keep the eating window consistent throughout the week, "metabolic jetlag could be minimized." The

thinking is that because people tend to start their days later on weekends, which disrupts their circadian rhythm. It is like flying a few time zones west on Friday evening and flew back east on Monday morning. So, some of the metabolic advantage may have been due to maintaining a more regular eating schedule.

Early or midday time-restricted feeding may have other benefits as well. Prolonged nightly fasting with reduced evening food intake has been associated with lower levels of inflammation and better blood sugar control, both of which might be expected to lower the risk of diseases such as breast cancer. So, data was collected on thousands of breast cancer survivors to see if nightly fasting duration made a difference. Those who could not go more than 13 hours every night without eating had a 36 percent higher risk of cancer recurrence. These findings have led to the suggestion that efforts to "avoid eating after 8 pm and fast for 13 hours or more overnight may be a beneficial consideration for those patients looking to decrease cancer risk and recurrence," though we'd need a randomized controlled trial to know for sure.

Early time-restricted feeding may even play a role in the health of perhaps the longest living population in the world, the Seventh-Day Adventist Blue Zone in California. Slim, vegetarian, nuteating, exercising, non-smoking Adventists live about a decade longer than the general population. Their greater life expectancy has been ascribed to these healthy lifestyle behaviours, but there is one lesser known component that also may be playing a role. Historically, eating two large meals a day, breakfast, and lunch, with a prolonged overnight fast was a part of Adventist teachings. Today, only about 1 in 10 Adventists surveyed were eating just two meals a day, but most—over 60 percent—reported breakfast or lunch was their largest meal of the day. Though this has yet to be studied with respect to longevity, front-loading one's calories earlier in the day with a prolonged nightly fast has been associated with significant weight loss over time, leading the researchers to conclude that eating breakfast and lunch five to six hours apart, and making the overnight fast last 18 to 19 hours may be a useful practical strategy for weight control.

#### 2. Incorporated spices daily

Spices have been used in medicine for thousands of years. Spices may provide multiple benefits to improve chronic health issues such as cancer, arthritis, Alzheimer's disease and even improve your overall mood. Today, researchers are discovering the ability of phytonutrients in spices such as ginger, rosemary, cilantro and turmeric to act as dietary restriction mimetics, multi-purpose drugs, chemopreventive agents and angiogenesis inhibitors, all which may help in the prevention and development of cancer. Saffron has been found to be just as effective in the treatment of Alzheimer's as the leading drug Aricept. Black pepper has been found to be potentially protective against cancer and inflammation. Combining black pepper with turmeric boosts the bioavailability; this illustrates why diversity in the diet is especially important.

Drinking green tea every day may increase our lifespan. And chai tea has all the benefits of tea but also incorporates cloves and cinnamon, which makes it one of the healthiest beverages. The most antioxidant-packed food by weight is cloves. Cinnamon, oregano, lemon balm, and majoram are also excellent sources of antioxidants. A pumpkin pie is an excellent way to incorporate cloves and cinnamon into your diet. Cayenne pepper could help with Irritable Bowel Syndrome and Chronic Indigestion and may also help boost the fat burning properties of brown adipose tissue. Ginger may



even help cure migraines. Spices may also replace common household supplements to aid in insomnia, improve muscle strength and even remove plaque better than typical mouthwash.

Curcumin, the yellow pigment found in turmeric, has the greatest potential for acting as a multipurpose drug in treating and preventing Alzheimer's Disease, a variety of cancers such as skin cancer, pancreatic and colon cancer, osteoarthritis and multiple myeloma, and for improving artery function. However, there is still a risk of toxicity and side effects from over consuming spices such as turmeric, nutmeg and tarragon.

Until about ten years ago, brown adipose tissue was considered to be biologically active only in babies and small children, generating heat by burning fat, but there is now no doubt that active brown fat is present in adult humans, involved in cold-induced increases in whole-body calorie expenditure, and thereby, the control of body temperature and how fat we are.

In 2013, researchers showed that one could activate brown adipose tissue by chilling people out long enough: two hours of cold exposure every day for six weeks, which can lead to a significant reduction in body fat. Although they demonstrated the effective recruitment of human brown fat, it would seem difficult to increase exposure to cold in daily life. Thankfully, our brown fat can also be activated by some food ingredients, such as capsaicin, the compound that makes hot peppers hot.

Whereas increased physical activity is usually recommended to increase energy expenditure, specific food components, such as capsaicin, are known to burn off calories and fat. There was a significant rise in energy expenditure within 30 minutes of eating the equivalent of a jalapeno pepper.

Normally, when we cut down on calories, our metabolism slows down, undercutting our weight loss attempts. But sprinkling a third of a teaspoon of cayenne pepper powder onto our meals counteracts that metabolic slowdown and promotes fat burning. They wanted to try giving them more, to try to match some of the studies done in Asia, but they were working with Caucasians. There is a difference in maximum tolerable dose of red chili pepper between Asians and Caucasians. Take some Japanese women, and you can boost the fat burned after a high-fat meal too, adding over a tablespoon of red pepper powder.

We have known for decades that cayenne pepper increases metabolic rate, but we didn't know how. But now, we have studies showing that this class of compounds increases energy expenditure in human individuals with brown fat, but not those without it, indicating that they increase expenditure straight off the bat. And there are all sorts of structurally similar flavor molecules in other foods, like black pepper and ginger, which we expect to activate thermogenesis as well, but they have not been directly tested.

All these results suggest that the anti-obesity effects of pepper compounds are based on the heat-generating activity of recruited brown fat. Thus, repeated ingestion can mimic the chronic effects of cold exposure without having to freeze ourselves.

Consumption of spicy foods may help us lose weight, but what about the sensory burn and pain on our tongues, and sometimes in our stomach as well as further on down? So, are our only two options for boosting brown fat to freeze or scorch ourselves?

Arginine-rich foods may also stimulate brown adipose tissue growth and development through a variety of mechanisms, which just means eating more soy foods, seeds, nuts, and beans.

You cannot stuff cabbage into a capsule, but there are some foods so potent that you could fit them into a pill to pit them against placebos: spices. Want to know if garlic can cause weight loss? Give people some garlic powder compressed into tablets versus placebo pills. And? Garlic worked, resulting in both a drop in weight and in waistlines within six weeks. They used about a half teaspoon of garlic powder a day, which would cost less than four cents.

Even a quarter teaspoon of garlic powder a day worked; about a hundred overweight men and women were randomized to a quarter teaspoon worth of garlic powder a day or placebo, and those unknowingly taking the garlic powder a day, lost about six pounds of straight body fat over the next fifteen weeks.

Then there's black cumin. A meta-analysis of randomized, controlled trials shows weight-loss efficacy again just a quarter teaspoon a day. Not regular cumin, this is a completely different spice known as black cumin. What is black cumin? Described as a "miracle herb" (in the bible), besides the weight loss, there are randomized controlled trials showing daily black cumin consumption significantly improves cholesterol and triglycerides, blood pressure and blood sugar control. But you can use it just because it tastes good—put black cumin seeds in a pepper grinder and grind it like pepper.

With more than a thousand papers published in the medical literature on black cumin, some reporting extraordinary results like dropping cholesterol levels as much as a statin drug, why don't we hear more about it? Why is it not taught in medical schools? Presumably because there is no profit motive. Black cumin is just a common, natural spice. Pharmaceutical companies are not interested in a product that cannot be patented, and costs just three cents a day.

Or you can use regular cumin, the second most popular spice on Earth. Those randomized to a half of a teaspoon at both lunch and dinner over three-months lost about four more pounds and an extra inch off their waist, found comparable to the obesity drug known as orlistat.

Cayenne pepper can counteract the metabolic slowing that accompanies weight loss and accelerate fat burning as a bonus. Ginger powder! Over a dozen randomized controlled trials starting at just a quarter teaspoon of ground ginger a day showing significantly decreased body weight for just pennies a day. Proven in placebo-controlled trials to work, but few people know about it, as there is no profit to be made from it.

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### Phase 4

Goals
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- 1. Shift calories to earlier in the day
- 2. Mindful eating

How:

### 1. Front load calories

- Largest meal no later than 3pm
- Last meal at least 2.5 hours before bed
- If skipping a meal, skip dinner not breakfast

### 2. Eat without distraction

- No television, tablets, phones, or work
- Take small bites and chew well.
- Try eating with your non-dominant hand; if you are a righty, hold your fork in your left hand when lifting food to your mouth.
- Set your kitchen timer to 20 minutes and take that time to eat a normal-sized meal.
- Use chopsticks if you do not normally use them.

# s Sur

### Why:

#### 1. Front load calories

We have known for more than 50 years that our "glucose tolerance" declines as the day goes on—the ability of your body to regulate blood sugars is impaired later in the day. A meal eaten at 8 pm can cause twice the blood sugar response as an identical meal eaten at 8 am; almost as if you ate twice as much.

Your body just is not expecting you to be eating when it is dark outside. Our species may have only discovered how to use fire about a quarter million years ago. We are just not well suited to eat around the clock.

One of the tests for diabetes is called the glucose tolerance test, to see how fast your body can clear sugar from your bloodstream. You drink a cup of water with about four and a half tablespoons of regular corn syrup mixed in, and then have your blood sugar measured two hours later. By that point, your blood sugar should be under 140 (mg/dL). Between 140 and 199 is considered prediabetes, and 200 and up is a sign of fully fledged diabetes.

The circadian rhythm of glucose tolerance is so powerful that a person can test normal in the morning, but as a prediabetic later in the day. Prediabetics who average 163 at 7am test out as full diabetics by 7pm, at over 200.

Choosing lower-glycemic foods may help promote weight loss, but timing is critical. Due to this circadian pattern in glucose tolerance, a low-glycemic food at night can cause a higher blood sugar spike than a high-glycemic food eaten in the morning. As a s species we are metabolically impaired at night, with researchers finding that eating a bowl of All Bran at 8 pm caused as high a blood sugar spike as eating Rice Krispies at 8 am. High-glycemic foods at night would seem to represent the worst of both worlds. So, if you are going to eat processed junk food, it might be less detrimental in the morning.

The drop in glucose tolerance over the day could therefore help explain the weight-loss benefits of front-loading calories towards the beginning of the day. Even just an earlier versus later lunch may make a difference. People randomized to eat a large lunch at 4:30 pm suffered a 46 percent greater blood sugar response compared to an identical meal eaten just a few hours earlier at 1pm. And a meal at 7 am can cause 37 percent lower blood sugars than an identical meal at 1pm.

There does not seem to be any difference between a meal at 8pm and the same meal at midnight—they both seem to be too late. But eating that late, at midnight, or even 11pm can so disrupt your circadian rhythm that it can mess up your metabolism the next morning—resulting in significantly higher blood sugars after breakfast, compared to eating the same supper at 6pm the evening before.

Breakfast-skipping not only generally fails to cause weight loss but worsens overall daily blood sugar control in both diabetic and non-diabetic individuals. This may help explain why those who skip breakfast appear to be at higher risk of developing type 2 diabetes in the first place. Breakfast skippers also tend to have higher rates of heart disease and atherosclerosis in general.



#### 1. Eat without distraction

Paying more attention to what you eat, could help keep you from overeating. Multitasking, like eating while watching television, working, or using your phone- distracted or hurried eating, can prompt you to eat more. Slowing down and savouring your food can help you control your intake.

Research published in the American Journal of Clinical Nutrition, by a research team at the University of Birmingham reached two key conclusions:

- Being distracted or not paying attention to a meal tended to make people eat more at that meal
- Paying attention to a meal was linked to eating less later on

Taking your time to chew and eat slowly allows your body more time to pick up on feedback that indicates you are full and alter your appetite accordingly.

Mindful eating is an application of a broader approach to living called mindfulness. It involves being fully aware of what is happening within and around you now. You can practice mindfulness during any daily activity—including eating.

Applied to eating, mindfulness includes noticing the colours, smells, flavours, and textures of your food. It also means getting rid of distractions like television or reading or working on your computer.

If mindful eating is a new concept for you, start gradually. Eat one meal a day or week in a slower, more attentive manner.

Mindful eating can reduce your daily calorie intake. By paying attention to what you are putting into your mouth, you are more likely to make healthier food choices. And you will enjoy meals and snacks more fully.

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