BY CERTIFIED PERSONAL TRAINER AND VEGAN NUTRITIONIST, MIGUEL Y.

WEGAN MUSCLE BUILDING GUIDE

A fact-based guide on how to build lean muscle while eating plants!

Applies to all fitness levels.

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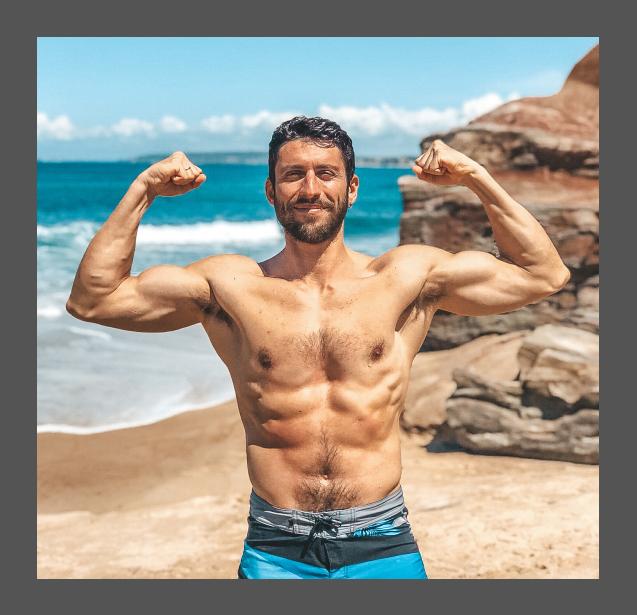
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Hi there, I'm Miguel a certified personal trainer and vegan nutritionist, nice to meet you and thanks for checking out my guide.

I've created this to lay out the fundamentals of how easy and simple it is to build muscle and to debunk all the misinformation out there that you can't build muscle, as a vegan.

Myself and many other vegan athletes are the living proof of how strong, fit and healthy you can be as a vegan.



I've been a vegan since 2015, coached dozens of people both online and in-person and veganism as well as weight lifting are my two biggest passions.

I've always been a fitness fanatic and when I stumbled upon veganism and saw how other athletes were performing in the gym and other sports it made me wonder maybe we don't actually need animals and their by-products to build muscle.

Since going vegan I've experienced a surge in energy - felt like I'm 15 years old again. Plus I was performing better at the gym, my digestion improved dramatically and I got to eat more food.

Win Win!

PART 1: HOW MUSCLES GROW 6

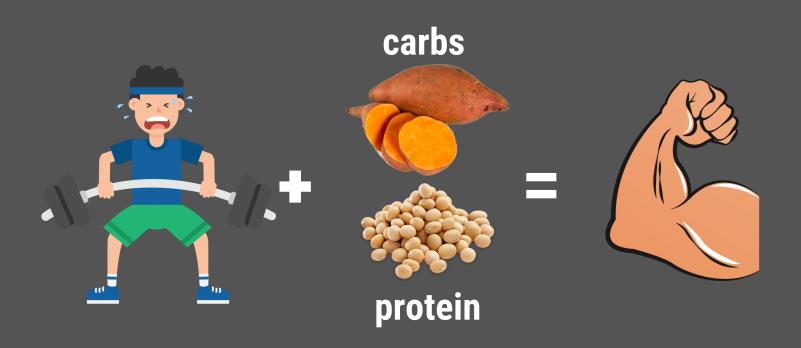
There are 600 muscles in the human body. From your tongue, to your fingers, muscles are used in an instant whenever you are performing any movement.

Picture raising a pen, it takes 2 fingers to do so and the number of muscles recruited is extremely small. Compare that to lifting a heavy sack of potatoes. The muscles needed to activate to lift that sack are far more.

When lifting the potatoes, a challenging weight, your muscles undergo damage which causes them to grow. "Damaging" your muscles consistently is what makes them stronger long-term.

The bigger the physical stress, the more damage the muscle fibers will experience and consequently the muscle rebuilding.

In order to grow your muscles you need to refuel them once you've damaged them and that fuel comes in the form of protein and carbs. Fats are important too but post-workout focus on those two primarily.



There are several rep ranges when it comes to resistance training, all of which will activate different muscle fibers.

We will go in more detail about those in Part 2.

PART 2: MUSCLE FIBER TYPES 6

Types of muscle fibers:

- 1. Slow twitch (type I)
- 2. Fast twitch (type II)

Slow twitch muscle fibers help with endurance feats such as running a marathon or performing high rep resistance training (think 9-10+ reps).

Fast twitch muscle fibers help with short but stronger bursts of energy such as sprinting or when performing below your 7-8 rep-max on any given exercise.

To grow your muscles efficiently you need to exercise both muscle fibers with using a varied training program.

If you're training for a specific sport then you need to prioritize a specific muscle fiber type so that it aids with your sport. A long-distance runner would benefit from mostly working on the 10+ rep range when training in the gym whereas a sprinter would want to focus more on heavier weight/ lower reps.

Not interested in any sport? Then your goals (strength training, bodyweight training etc) will determine the predominant style of your training.

P.S. muscle fiber types go deeper into A and B categories but we won't be covering those in this guide.

PART 3: THE ULTIMATE REP RANGE

Muscular hypertrophy is the increase of muscle cells in both strength and size.

There are two types of hypertrophy and those are:

- 1. Sarcoplasmic hypertrophy
- 2. Myofibrillar hypertrophy

Sarcoplasmic hypertrophy helps increase the size of the muscle cells. Think of the "pump", this is what bodybuilders are after.

To achieve this type you should train in the 8-15 rep range with 45-60 sec and performing between 3-4 sets of each exercise.

Myofibrillar hypertrophy strengthens the muscle cells but doesn't aid in size much. In a nutshell, your muscles are becoming stronger but not bigger. Think powerlifting.

In order to improve the strength of your muscles you'd have to train in the 1-7 rep range roughly with 2+ minutes of rest between sets and performing a total of 5-10 sets of each exercise.

I'm a firm believer of training your muscle cells in both ways, i.e. exercising within both rep ranges for optimal muscle and strength growth overtime.

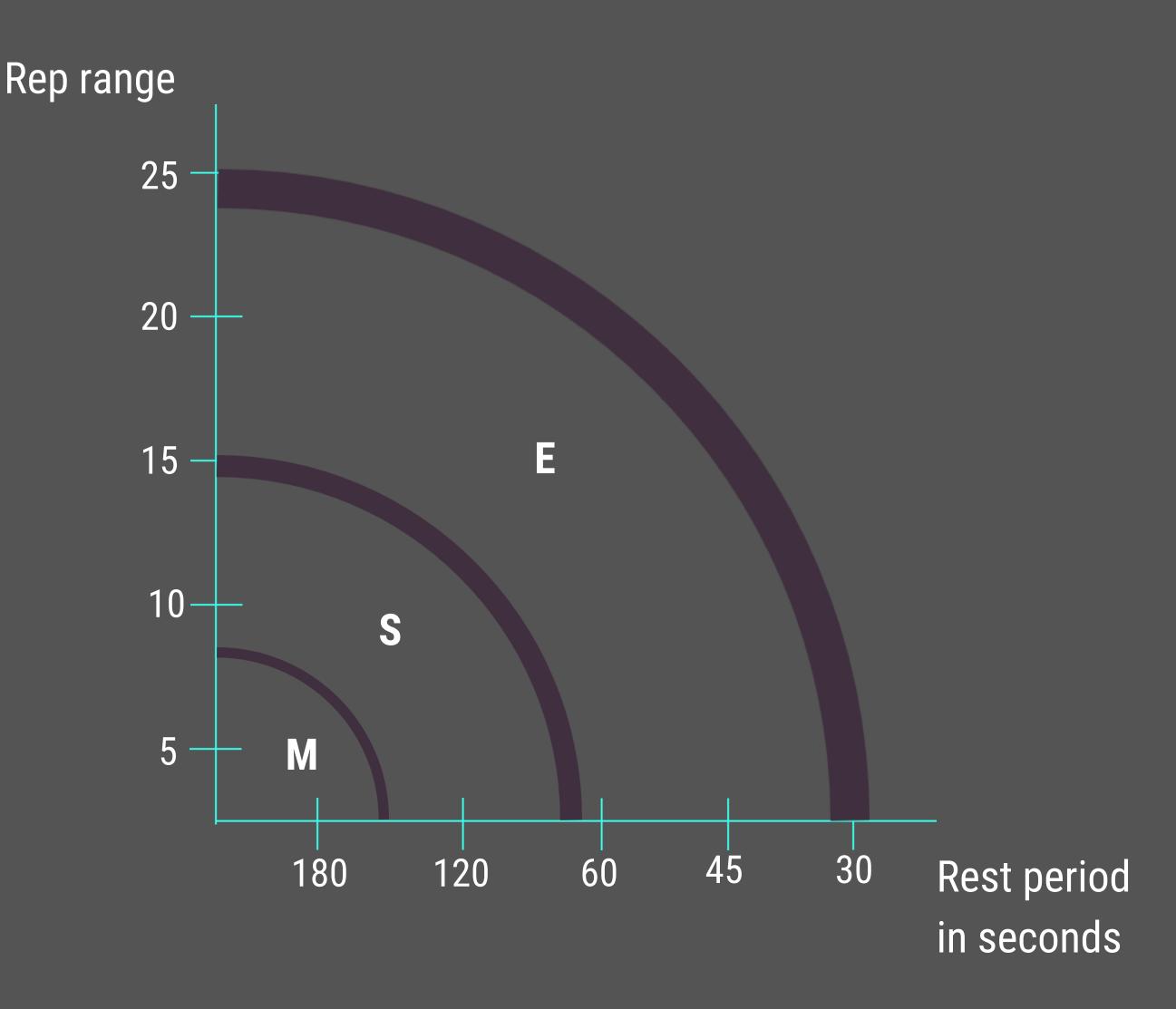
What about muscle endurance?

PART 3: THE ULTIMATE REP RANGE



Anything above 15 reps is considered to aid in muscle endurance and here you may want to minimize the sets to a max of 3 in total with 30-45 sec of rest between sets.

This type of training is still under the Sarcoplasmic Hypetrophy up to a certain point. Once the reps start getting above 25 or more then it may well be considered cardio - think 50 air squats or push-ups etc.



- M MYOFIBRILLAR
- S SARCOPLASMIC
- **E ENDURANCE**

PART 4: TRAINING FREQUENCY

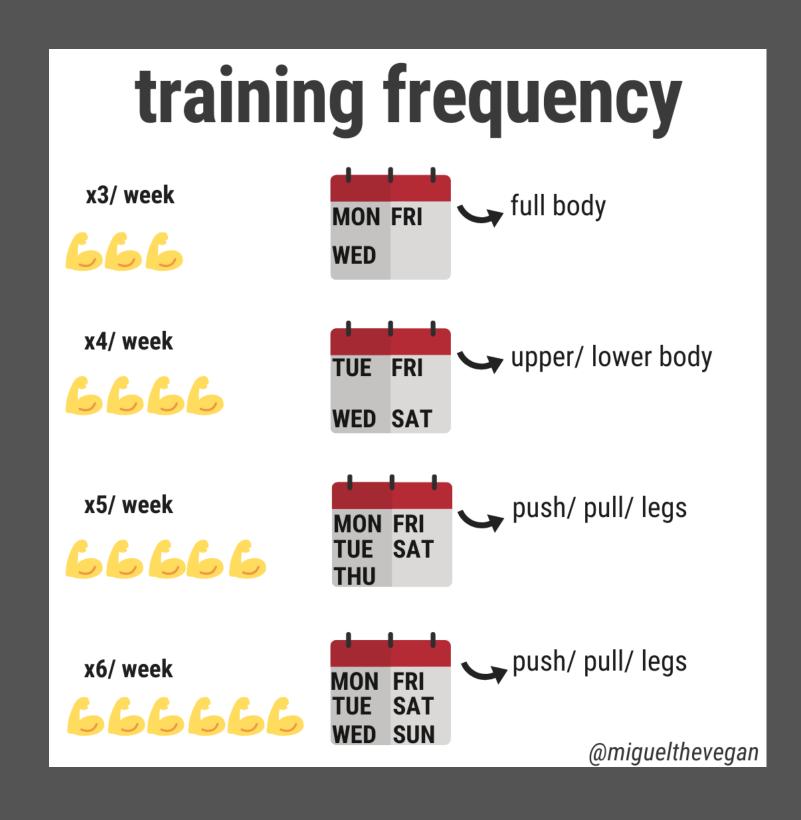
How often should you train for optimal muscle growth?

I'm sure you've heard of the typical "bro split" that has you train Chest/Back/ Arms/ Shoulders/ Legs x5 times a week. The problem with the one-muscle-group type of training is the lack of stimuli and the training imbalance.

Generally speaking your muscles are ready to be worked on again and have fully recovered within 48-72h. Meaning if you train chest on a Monday you can already train that muscle group by Wednesday/ Thursday.

That's why I recommend one of the following 3 routines:

- 1. Full Body Training x3 times a week for beginners
- 2. Upper/ Lower Body Training x4 times a week for intermediate/advanced lifters
- 3. Push/Pull/Legs Training x5-6 times a week for intermediate/advanced lifters



PART 4: TRAINING FREQUENCY "

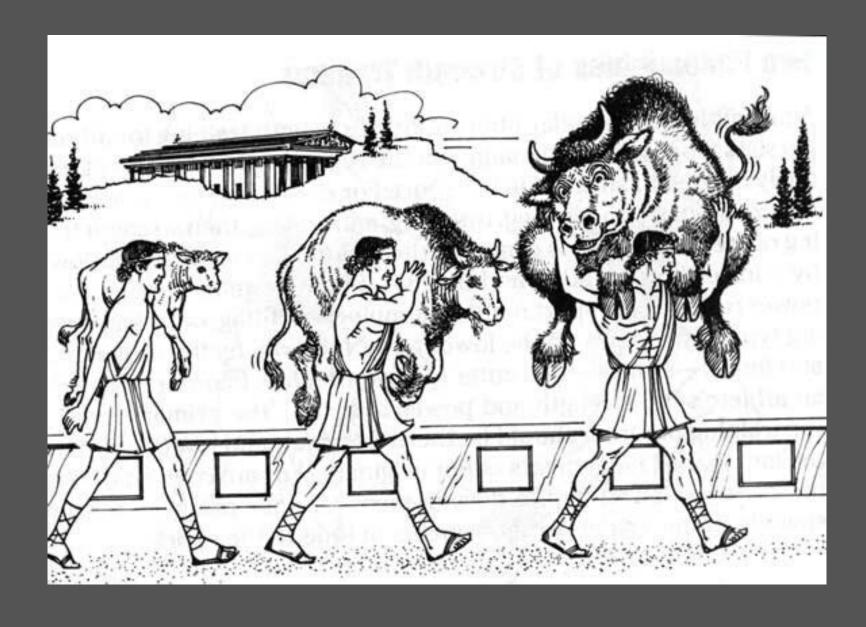
When you go to the gym or train at home don't waste your time by doing 1h30+ sessions because you will probably end up getting bored. Personally my sessions never exceed 45 minutes.

As long as you're training correctly and activating your muscles enough you will experience strength and muscle gains. The key to proper training is good technique and progressive overload.

Meaning, getting stronger with all your main lifts, prioritizing deadlifts, squats, presses, rows, pull-ups etc over time. By slightly increasing the weight you're moving by 2.5 - 5% or the amount of reps you're doing by 1-2 on a weekly or bi-weekly basis.

Progressive overload is illustrated by the Myth of Milo - a Greek wrestler. Milo would lift and carry a baby calf everyday, until eventually it became a fully grown bull. Doing this everyday, in turn, increased Milo's muscle mass and strength.

But, progress will not be linear. The trend should be an increase overtime but you will experience ups and downs as you go.



PART 5: SAMPLE TRAINING PLANS

Here is a sample training plan for the Full Body and the Upper/ Lower Body splits:

Full body (x3 times a week)*

- 1. Barbell front squat 3x8
- 2. Barbell overhead press 3x8
- 3. Leg press 3x10
- 4. Barbell bent over row 3x10
- 5. Weighted push up 3x10
- 6. Barbell straight leg deadlift 3x10

*you can do the same workout x3 times a week but I suggest having two workouts to alternate each day

Upper/ Lower body (x4 times a week)*

Upper (x2 times a week):

- 1. Barbell bench press 3x8
- 2. Dumbbell single arm row 3x8 each
- 3. Dumbbell arnold press 3x10
- 4. Wide grip pull up 3x8
- 5. Chest dip 3x10
- 6. Dumbbell lateral raise 3x12

Lower (x2 times a week):

- 1. Barbell back squat 3x8
- 2. Barbell straight leg deadlift 3x8
- 3. Dumbbell reverse lunge 3x10 each
- 4. Stability ball hamstring curl 3x15
- 5. Kettlebell/ dumbbell goblet squat 3x15

PART 6: CALORIE INTAKE

We all know that "Abs are made in the kitchen". The same goes for muscle. You can spend all day "damaging" your muscles by lifting weights, but you won't see any changes unless you're eating in a caloric surplus.

What does that mean? It means eating more calories than you burn. The way we want to do that is by minimizing the fat gain and increasing our caloric intake by 200-300 calories/day.

If you're a 25y, 165lb/ 75kg male at 5"11/ 180cm and train full body x3 a week while also having an active lifestyle you roughly need 2,500 calories per day to maintain your current weight.

To build muscle you have to eat more than that on a daily basis. Aiming between 200-300 calories more each day (2,700 - 2,800) will help you lean bulk. Why I say "lean bulk"?

The aim is to build muscle while staying as lean as possible minimizing the fat gain (which is inevitable when eating in a surplus unless you're a complete beginner or genetic wonder).

(Basal Metabolic Rate) - the calories you burn if you'd stay in your bed the entire day without moving.

(Total Daily Energy Expenditure) - the calories you need per day to maintain your weight given your daily activities.

LEAN

MUSCLE TDEE + 200/300 calories per day.

GAIN

PART 6: CALORIE INTAKE

But I'm vegan, how do I eat that much food to be in a surplus? Worry not my friend, I've got you covered. Going vegan and eating mostly a whole-foods plant-based diet means you will:

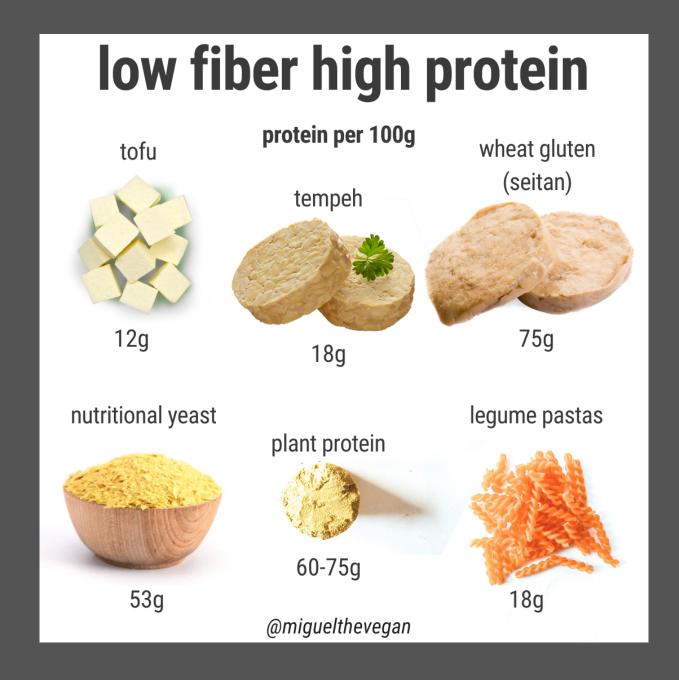
- a) Naturally eat more food in terms of volume.
- b) Consume higher amounts of fiber on a daily basis.
- c) Eat more carbs.

All of these aren't necessarily bad so let's go through them:

- a) Start by tracking your calories I recommend using an app called Cronometer. Broccoli, beans, rice, potatoes, those foods are lower in calories than what a meat-eater is used to consuming (beef, eggs, dairy etc). You can incorporate more higher calorie foods to begin with such as: avocados, bananas, dried fruit, nuts and nut butters, oats, seeds and tahini to help you get in more calories. You will notice these are mostly fat sources, which since they have 9 calories per gram; Vs the 4 calories per gram that protein and carbs have; they make it easier to eat more calories while not necessarily increasing the portion sizes that much.
- b) Your gut microbiome needs time to adjust to new dietary habits. Eating too much fiber at once can cause gas and bloating at first. The long-term health benefits of consuming a fiber rich diet are plenty so start slow and build up overtime. Aim for 10g of fiber per 1,000 calories. Chew your food well to get the digestive enzymes going and make sure to eat a variety of plants to get both the soluble and insoluble fiber that your body needs for many different processes.

PART 6: CALORIE INTAKE

Some examples of low fiber/ high protein foods:



c) Fear of carbs. By going plant-based you are going to naturally increase the amount of carbohydrates you consume. From our liver, brain and muscles, they all need glucose; which is what carbs turn into once they reach our bloodstream; to function properly.

"Dietary carbohydrates do not increase an individual's fat content by de novo lipogenesis (aka storing fat)." Keto, Paleo, Atkins and other low-carb diets aren't optimal for muscle growth since carbs are what muscles need for energy, protein on the other hand is the building block of our muscles.

"The present nutritional advice of increasing the proportion of carbohydrates while decreasing that of fat has strong scientific support in terms of the regulation of the energy balance."

My recommended proportions of macronutrients, which we will go in more depth soon are 60% carbs/ 20% protein/ 20% fat or a 40% carbs/ 30% protein/ 30% fat.

PART 7: GETTING ENOUGH PROTEIN 👊

There was a time when I was consuming 3g protein per kg of bodyweight everyday. Now, after lots of research and study I've found the optimal amount of protein that we as humans need, vegan or not.

What I used to consume - 3g per kg - for a 75kg male, was a whopping 225g of protein per day, which is unnecessary since excess protein gets dumped out of our body through our urine.

How much protein do I consume now? No more than 100 - 110g per day which translates to 1.4g protein per kg. Half of what I used to eat. This in turn made me feel and perform better.

For athletes or anyone who is trying to build muscle I recommend anywhere between 1.2g - 1.5g of protein per kg of bodyweight. Remember that all plants contain protein to some degree. Some more than others but you need to eat from all six food groups (legumes, wholegrains, fruits, vegetables, nuts and seeds).

Some of my favourite protein sources as a vegan include lentils, chickpeas, peas, oats, quinoa, wholewheat pasta, peanut butter, soy milk, soy yogurt, nutritional yeast, protein powder and mock meats like the ones from Beyond Meat or Gardein.

Being vegan means you won't eat meat, fish, dairy and eggs which for non-vegans are the primary sources of protein. So how do you get enough protein on a vegan diet?

PART 7: GETTING ENOUGH PROTEIN 👊

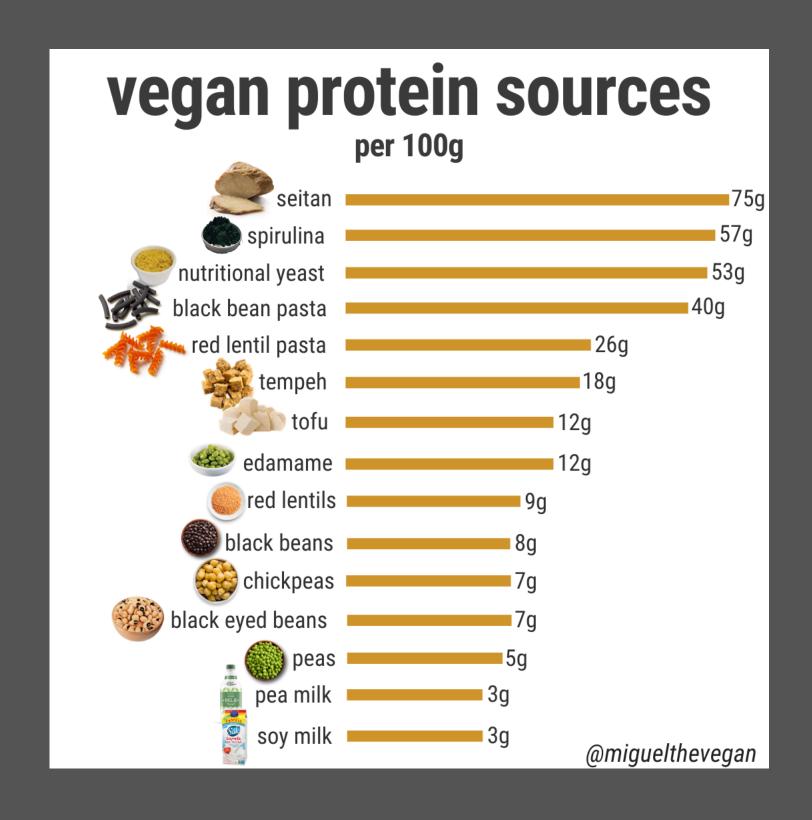
Humans need protein, carbohydrates and fats. Those are the three essential macronutrients that our bodies need to function.

Some of the strongest mammals on earth like hippos, elephants, giraffes, oxes and gorillas get their protein from plants

All plants have all 9 essential amino-acids that our body converts into complete proteins once ingested. Food combining in a single meal such as beans & rice is unnecessary to get a complete protein as a vegan.

Just ensure you are eating a varied plant-based diet consisting of those 6 food groups we talked about earlier. By eating this way all or most of the time you won't have to worry about protein.

If you find you're struggling to get enough protein then mock meats can come in handy. Or a plant protein powder like the one I use from Vivolife (feel free to use MIGUEL10 for a discount).



Here are some high protein sources that you can utilize on a daily basis to increase your intake for the day.

Wholegrains, nuts, seeds and certain veggies are also high in protein.

PART 8: BONUS PART 😉

You know how much protein you need, how often and what type of training you need to be doing and that you can indeed build muscle as a vegan, so let's dive into the Bonus Part.

1. Healthy eating tips:

- Substitute oil for water, soy sauce or tamari (GF) when frying since oils are basically "empty calories" due to their weak nutritional profile
- Do a Sunday meal prep for all your lunches for the week ahead if you're too busy during the work week. This way you're ensuring you're staying on track with your meals when out of the house
- Snack on rice/corn cakes, apples, dried fruit or nuts/seeds when hungry throughout the day and avoid too many processed snacks like crisps, candy bars or fizzy drinks
- Eat a big and nutritious breakfast which is high in protein, carbs and relatively high in fat to avoid snacking/ getting hungry fast

2. Money saving tips:

- Buy in bulk as much as possible
- Opt for locally grown and seasonal fruit and veggies
- Make your own seitan using wheat gluten
- Buy frozen berries vs fresh ones

3. Muscle building tips when eating:

- Opt for pea or soy milk as it's the highest plant milk in protein
- Go for liquid calories if you have trouble eating a lot (homemade protein shakes with dates, oats, nut butter, banana, avocado, dark chocolate)
- For lunch/ dinner follow this rule: Add a wholegrain base (brown rice, quinoa, millet), roasted veg (potato, carrot, pumpkin), fresh veg (spinach, tomato, cucumber), protein source (tofu, edamame, chickpeas, lentils) and dressing (tahini, lemon and garlic or avocado and lemon).

PART 9: HIGH PROTEIN RECIPES 6

10 high protein recipes:

VEGAN OMELETTE















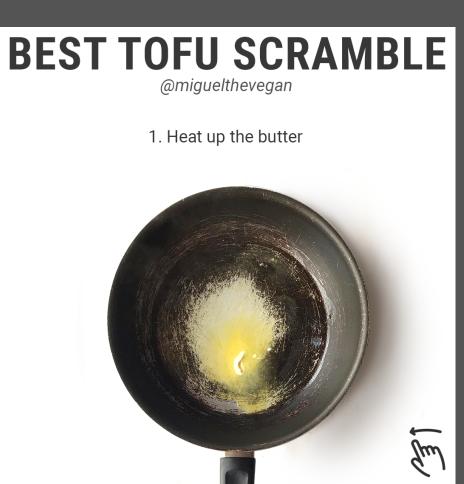


PART 9: HIGH PROTEIN RECIPES 6

BEST TOFU SCRAMBLE















PART9: HIGH PROTEIN RECIPES 💪

VEGAN SHAWARMA

vegan shawarma @miguelthevegan Per serving Serves 3 312kcal 43P /23C /6F (ju)

vegan shawarma @miguelthevegan

Ingredients

For the marinade:

• 2 tbsp agave syrup

• 1 tbsp tomato sauce

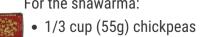
• 1 tbsp olive oil

• 1/8 tsp liquid smoke

• 2 tbsp soy sauce

• 1/2 tsp paprika

For the shawarma:



- 2 tbsp nutritional yeast • 1/2 tsp garlic powder
- 1/2 tsp cumin • 1/2 tsp coriander 1 tbsp soy sauce
- 1/4 cup (65g) tomato sauce • 1/2 tsp paprika
- 1/4 tsp black pepper 1/3 cup (80ml) water
- 1 tsp Dijon mustard • 1/8 tsp liquid smoke



vegan shawarma @miguelthevegan

Step 1

Blend chickpeas, nutritional yeast, garlic powder, cumin, coriander, soy sauce, tomato sauce, paprika, black pepper, water, mustard and liquid smoke. Blend until creamy.



vegan shawarma

Swipe for step by step

@miguelthevegan

Step 2 Add the wheat gluten to a large bowl.



vegan shawarma

@miguelthevegan

Step 3

Pour the mixture into the bowl and stir in briefly with a spoon. Then get in there with your hands, kneading it a few times until it goes from soft and sticky to firm.



vegan shawarma @miguelthevegan

Step 4

Flatten it on a work surface and pat it down into the shape of a large steak.



vegan shawarma

@miguelthevegan

Step 5

Wrap it in tinfoil (not too tight as it needs room to expand) and place into a steamer basket over a pot of boiling water (or in any kind of steamer that you have) to steam for 20 minutes.



vegan shawarma

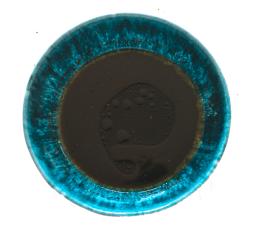
@miguelthevegan

Step 6

Eul

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Making the marinade: in a small bowl whisk in the soy sauce, paprika, agave syrup, tomato sauce and olive oil. The oil won't really incorporate but that's ok.



vegan shawarma

@miguelthevegan

Step 7

After steaming, remove seitan from the tinfoil and cut into strips. Place into a hot frying pan. Pour the marinade immediately and fry the seitan strips, turning regularly, until all the pieces are nicely charred and crispy on the outside.



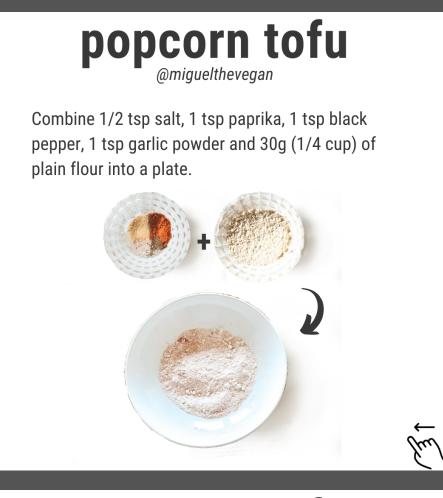


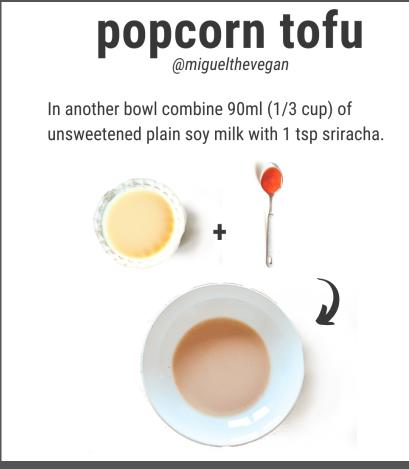
PART 9: HIGH PROTEIN RECIPES 6

POPCORN TOFU

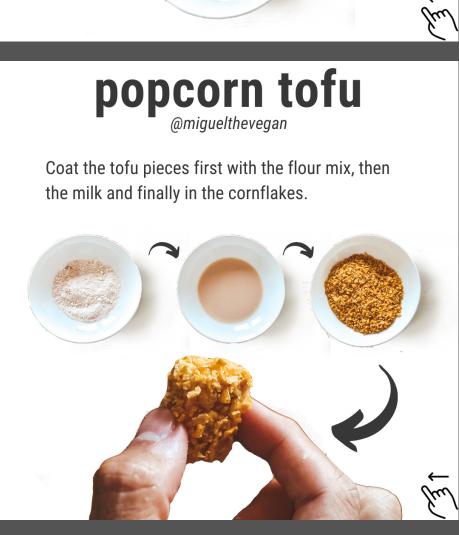




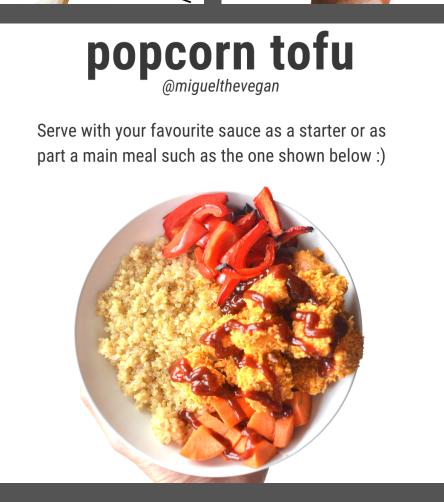












PART 9: HIGH PROTEIN RECIPES 6

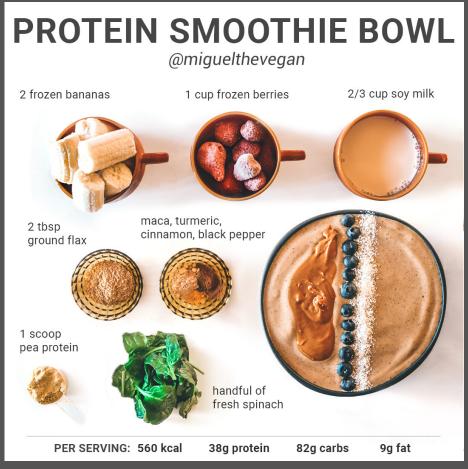
MORE HIGH PROTEIN RECIPES













For more recipes like these follow me at omiguelthevegan on Instagram and Facebook.



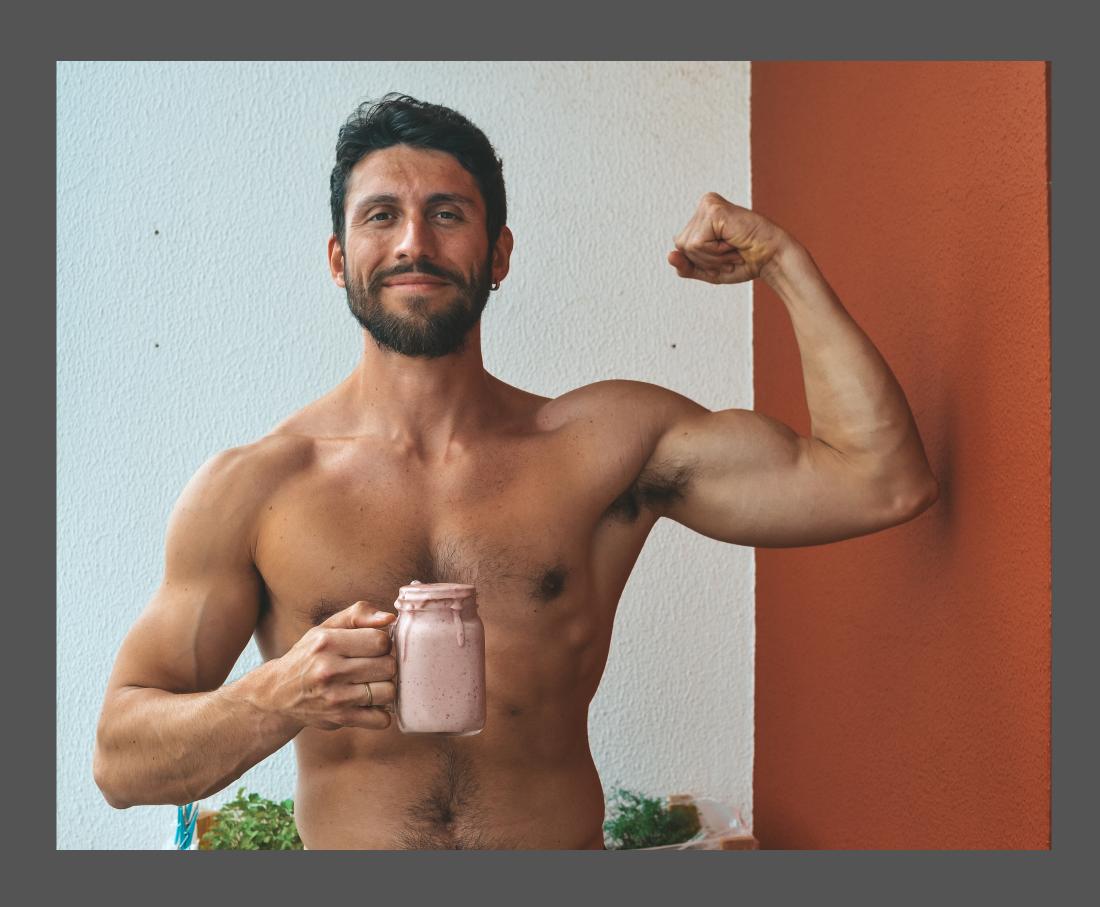
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In need of a tailored workout or meal plan to build that strong vegan muscle?

Then I'd love to help you accomplish that!

Head to <u>www.miguelthevegan.com</u>



Sincerely yours, Miguel Y.