# MUSCLE GROWTH

HEALTH BENDERS

# INTRODUCTION

This e-book will give you all the information you need to build lean muscle.

We will cover the 3 key components of building muscle mass:

1. Training
2. Recovery
3. Nutrition

Whether you're a beginner or an experienced lifter, you'll get all the knowledge and tools to reach your personal fitness goals.

By the end of this guide, you'll have a solid understanding of the key principles how to build up lean muscle mass.

**Let's take your physique to the next level**

# TRAINING

# PROGRESSIVE OVERLOAD

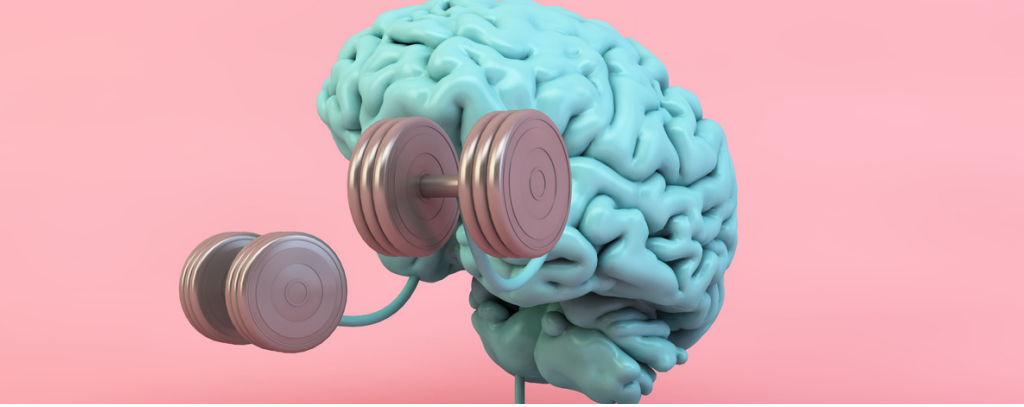
What drives muscle growth? The answer is **progressive overload.** This principle involves progressively increasing the demands on the musculoskeletal system to continually make gains in muscle size, strength and endurance.

As your body adapts to the current resistance training, you will notice the same weights and reps are no longer hard to complete. In order to get bigger and stronger, you must make your muscles work harder than they're used to.

You can increase the reps, intensity, timing or load to increase the demand on your muscles. The most effective one to build muscle? Increase the load while maintaining good form. Progressively lift heavier and heavier weights.

**Example progressive overload:**

Let's say you can bench press 8 reps with 100 lbs. If you continue doing 8 reps with 100 lbs, don't expect further gains. However your chest will grow if you put greater demands on it. Add a rep every week until you can do 12 clean reps. Now increase the weight so you can only do 8 reps and build up to 12 again . Keep repeating this cycle and grow.



# MIND MUSCLE CONNECTION

I'm a big believer of the mind muscle connection. This is the mental focus on specific muscle contractions during a given exercise.

Research suggests that mentally focusing on muscle contractions increases your cortical output (signals from your brain). This leads to higher levels of muscle activation, which is what you need to maximize your gains.

It takes time and effort to develop, but if you're willing to put in the work, you'll find that it can positively impact your workouts.

Tips for mind-muscle connection:

- Focus on the target muscle, not on the weight
- Slow down the reps / Control the weight
- Focus on proper form
- Have your partner touch the target muscle
- Flex the muscle in between sets
- Visualize

# COMPOUND EXERCISES

Compound exercises are the ones that work multiple muscle groups & joints. Examples: Bench press, squats, deadlift, overhead press, pull-ups, dips, rows,...

These movements recruit greater amounts of muscle fiber than isolation movements, which are single-joint exercises.

**Why are compound exercises important:**

- Time efficient
- Reduces muscle imbalances
- Enables you to work with heavier weights
- Improves mobility
- Builds more muscle & strength

Start your workouts with compound exercises. You will be able to lift heavy, while your body is still fresh. Finish with isolation exercises to really target the specific muscle group you want to grow.

- Compound exercises: heavy weights / 5-8 reps / Rest 2-3min
- Isolation exercises: mind muscle / 8-12 reps / Rest 1-2 min

# VOLUME

One of the most common areas of confusion among lifters is figuring out exactly how many sets one should do in a workout.

Some opt for lower volume approaches, saying that even just one set taken to failure in a workout is sufficient. Others favour higher volume approaches working each muscle to the point of exhaustion. Who's right?

**Here is what research says:**

Around 10 sets per muscle group in a single workout seems to be a threshold at which performing more sets begins to diminish returns (junk volume). It also depends on many factors like your training experience and the exercises you perform.

Given that around 10-20 sets/ muscle per week is optimal, it's better to split your sets for a muscle group to at least 2 separate workouts per week.

Figure out your target sets per muscle group and split it up throughout the week.

# WORKOUT SPLITS

The two best workout splits to build muscle (in my opinion):

**1. Push - Pull - Legs**

- Push workout: trains all upper body pushing muscles (chest, shoulders & triceps).
- Pull workout: trains all upper body pulling muscles (back, biceps & rear delts).
- Legs workout: trains all lower body muscles **(**quads, hamstrings, glutes, calves).

If you can go 6 days per week to the gym, this is the split to got for.

Push-Pull-Legs => Rest => Push-Pull-Legs => Rest =>...

**2. Upper - Lower** ( 4 days per week)

This split involves separating upper and lower body:

- Upper day: chest, back, shoulders, biceps & triceps
- Lower day: Hip flexors, glutes, quads, hamstrings, calves.

**Monday:** Upper
**Tuesday**: Lower
**Wednesday**: Rest
**Thursday**: Upper
**Friday:** Lower
**Saturday & sunday:** Rest

# RECOVERY

# RECOVERY IS KEY

Weight lifting causes tiny tears (micro-tears) in the muscle fibers, which your body then repairs. This is how your muscles grow (hypertrophy).

You want to achieve an optimal amount of micro tearing in the muscles. Not so much that your body falls behind with the repairing process, but also not so little that you miss out on potential gains.

Without adequate recovery, your muscles may not have enough time to repair and grow, leading to fatigue, injury, and decreased performance.

**Why recovery is crucial for building muscle:**

- Reduces muscle pain & soreness
- Allows the body to replenish energy stores
- Crucial to repair and build muscle
- Will help prevent overuse injuries
- Allows the mind to rest as well

# 10 tips for optimal recovery:

**1. Get enough sleep:** getting 7-8 hours of quality sleep per night is essential for muscle recovery and growth. During sleep, your body produces growth hormone and repairs muscle tissue.

**2. Power up with protein**: this is essential for muscle recovery. It provides the building blocks needed to repair and grow muscle. Aim for 1 gram of protein per pound of body weight.

**3. Don't fear carbs:** they provide your body with the energy it needs to repair and rebuild muscle tissue. They replenish glycogen in the muscles after hard workouts. This can help reduce muscle soreness and improve recovery time.

**4. Active recovery:** this is when you do some light physical activities, cool downs or mobility exercises. The purpose is to promote blood flow and nutrient delivery to the muscles. This will help your recovery and repairing process.

**5. Post workout stretches:** stretching after a workout can help reduce muscle soreness. It also increases blood flow to the muscles. This helps recovery by bringing oxygen and nutrients to your muscle tissue.

**6. Foam rolling** can help your muscle recovery by:

• Breaking up muscle adhesions
• Reducing muscle soreness
• Improving blood flow
• improving range of motion

**7. Ice baths:** exposure to cold temperatures causes blood vessels to constrict. This results in a reduction of swelling and inflammation. Tip: don't take an ice bath right after your workout if your goal is muscle growth.

**8. Don't skip rest days:** a successful workout plan isn't complete without rest days. Give your muscles time to recover by taking rest days. This will prevent overuse injuries and allow your muscles to recover from hard workouts.

**9. Stay hydrated:** drinking plenty of water throughout the day is crucial for muscle recovery. When your body is dehydrated, it will negatively impact muscle function and recovery.

**10. Recovery** supplements: there are several supplements out there that claim to enhance muscle recovery.

Here are the ones I recommend:
• Creatine: boosts ATP production
• Magnesium: promotes relaxation
• Protein powder: repair muscles
• Fish oil: reduces inflammation

# NUTRITION

# FEED YOUR MUSCLES

You can work out hard and rest perfectly, but if you don't eat correctly, you won't grow.

Your diet either works for you or against you, multiplying or dividing your training results.

**Proper nutrition comes down to two things:**

1. Supplying your body with the nutrients needed to efficiently recover from your workouts.
2. Manipulating your energy intake to lose, maintain, or gain weight.

When you know how to do this, you can easily change your body composition while also being flexible with your diet.

**The most important aspects of nutrition are:**

- Calories
- Macronutrients: protein, carbs , fats
- Water, vitamins & minerals
- Fiber


# CALORIES

A **calorie** is a unit of measurement for energy. The calories we consume from food and drinks provide our bodies with the energy needed for daily activities and bodily functions.

**Calories** determine how much weight you can lose or gain in a specific time. The key is to consume the right amount according to your goals:

- **Calorie deficit:** when you burn more calories than you consume. This will result in weight loss.
- **Calorie maintenance:** when your calorie intake is the same as you burn through body processes and exercise. You will maintain a stable weight
- **Calorie surplus:** when more energy is consumed with food or drinks than there is being burned through body processes & exercise.

If you want to gain muscle, you have to eat more calories than you burn = **calorie surplus**. Add around 250-500 calories to your total daily energy expenditure (TDEE) & adjust from there.

# MACRONUTRIENTS

If you're looking to make the biggest possible change to your nutrition, you're probably aware that it's only a matter of time until you see the word '**macros**' (abbreviation of macronutrients).

**Macronutrients** are the main nutrients your body needs in large amounts to function properly. The three main macronutrients are: protein, carbs & fats.

**Calories per macronutrient**

- **Carbs:** 4 calories per gram
- **Protein:** 4 calories per gram
- **Fat:** 9 calories per gram

Here are a few reasons why we need macronutrients:

- Energy production
- Building & repairing tissues
- Hormonal regulation
- Brain function

Each macronutrient plays an important role in maintaining good health, and it is important to have a balanced intake of all three to maintain a healthy diet.

# PROTEIN

**Protein** are nutrients that are important for the basic structure of our bodies. Our cells, organs, muscles, bones and connective tissue are built with the help of proteins.

A high-protein diet is absolutely vital for repairing and building muscle. When you eat food with protein, your body breaks it down into a pool of amino acids, which it can then use to build muscle tissue.

Weightlifting (& other exercise) increases your body's need for essential amino acids and protein. If you consume too little protein, your body can become deficient in these essential amino acids. This will massively impair your muscle gains and that's not what you want right?

I recommend eating around 1 gram of protein per pound of bodyweight for optimal muscle growth.

**Great protein sources:**

- Eggs / Fish & seafood / Low fat cottage cheese
- Lean Meats / Chicken breast / Turkey
- Beans / Legumes / Peas
- Greek yogurt / Skyr / Low fat yoghurt
- Whey protein / Casein protein


# CARBS

Carbohydrates have a bad reputation in the fitness world- undeserved. Well, while eating too much carbs can make you fat (just as eating too much protein or fat can), carbs are not your enemy.

Carbs are an essential part of muscle development. They provide the energy required for strength training and prevent fatigue during your workouts.

When you lift weights, you rapidly drain your muscles glycogen stores, and you replenish those stores when you eat carbohydrates. By doing this and keeping your muscles “full” of glycogen, you improve performance and reduce exercise-induced muscle breakdown.

As a general rule of thumb, you want to get the majority of your carbs from complex, slower-burning sources.

**Great carb sources:**

- Wild rice / Brown rice / Quinoa
- Oats & fruits
- Sweet potatoes / Potatoes
- Legumes: beans, lentils, chickpeas

# FATS

Fats are an important part of a healthy balanced diet. We need fats for normal body function and maintaining our well-being.

**Roles of fat:**

- Helps control inflammation
- Regulates hormone production
- Keeps skin and hair healthy
- Helps absorb vitamins A,D, E & K
- Brain development
- Helps to keep you warm

The type of fat that you want to avoid at all costs is **trans fat**. Trans fat is artificially created and added to food primarily to increase shelf life, and it's bad news. Research has associated trans fat intake with a variety of health problems.

**Great fat sources:**

- Almonds / Walnuts / Brazil nuts / Cashews
- Natural almonds butter / Eggs / Fatty fish
- Flax Seeds / Sesame Seeds / Pumpkin seeds
- Olives / Avocados / Ghee / Coconut meat

# HYDRATION

Staying hydrated is crucial for your health and well-being. Water makes up around 60% of your bodyweight.

**Important functions:**

- Flushing body waste
- Helping brain function
- Nutrient absorption
- Boost skin health
- Blood oxygen regulation
- Regulating temperature

Water also plays a crucial role for your muscles. It is essential to stay hydrated if you want to build muscle and experience optimal performance in the gym.

Muscles are mostly made of water. Dehydration can prevent muscles from properly contracting, reducing muscle tone. Increasing water intake will help prevent muscle cramping, improve the strength of muscle contractions and quicken muscle response.

Drink 3 to 4 liters for maximum benefits.

# VITAMINS MINERALS

Many people aren't aware of the physiological role and importance of vitamins and minerals.

Your body needs a wide variety of vitamins and minerals to perform the millions of physiological processes that keep you alive and well.

Ideally, we'd get all of the vitamins and minerals we need from the food we eat, but this is easier said than done.

**Here is what I recommend:**

Try to have the majority of your calories come from nutrient-dense foods (whole fruits and vegetables, whole grains, lean protein sources, and healthy fats). This will help your body reach the daily requirements.

You can also supplement with a good multivitamin to fill any holes left by your diet to ensure your body gets all the micronutrients it needs.


# FIBER

Scientific research shows that eating enough fiber helps you to live a long and healthy life. According to the Institute of Medicine, you should consume 14 grams of fiber for every 1,000 calories of food eaten.

Fiber is also important for muscle gains:

- It helps regulate blood sugar levels, which is crucial for muscle growth and recovery.
- It helps promote feelings of fullness, reducing the risk of overeating and promoting weight management.
- It helps to regulate digestion by promoting regular bowel movements and reducing the risk of constipation.

**Great fiber sources:**

- Fruits / vegetables
- Legumes: beans, lentils, chickpeas
- Whole grains: oatmeal, brown rice, quinoa
- Avocados / Nuts & seeds

# AVOID ALCOHOL

This needs to be said: drinking lots of alcohol is one of the worst things you can do for your health and muscle gains.

**Here is how it affects your muscle growth:**

- Disrupts protein synthesis
- Lowers testosterone levels
- Decreases your metabolism
- Induces insulin resistance
- Negatively affects your sleep
- Contains empty calories (almost no nutrients)
- Can cause dehydration and nutrient deficiency

Do you need more reasons to stop binging drinking?!

**Alcohol = muscle destroyer**

Lower your alcohol consumption. It will improve your physical and mental health, increase longevity, and reduce the risk of developing several serious health problems.