

The Beginner Fitness System

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PDF 6 of 6: Science-Based Gym Program

4-Week Evidence-Based Strength & Hypertrophy Training

Science-Based Gym Workout Plan

4 Weeks of Evidence-Based Strength & Hypertrophy Training



Research-Backed



Progressive Overload



4-Day Split

Welcome to the Science-Based Gym Program

This is **not** a beginner program — this is for lifters ready to train with purpose, intensity, and scientific precision.



You need access to a fully equipped gym (barbells, dumbbells, cables, machines)



You should have 6-12 months of consistent training experience



You must understand fundamental movement patterns and proper form

This 4-week program is designed around **evidence-based training principles** proven to maximize strength and hypertrophy gains.

Every exercise, set, and rep range has research backing it.
Let's build serious strength.

How to Use This Program

1 Follow the 4-day split: Lower/Upper/Rest/Lower/Upper

2 Track every lift using the progress tracker

3 Warm up properly: 5-10 min cardio + 2-3 warm-up sets

4 Focus on progressive overload each week

5 Rest 2-3 minutes between compound lifts

6 Deload in Week 4 to prevent overtraining



Critical for Success:

- Form is non-negotiable — never sacrifice technique for weight
- Progressive overload is mandatory — aim to beat last week's numbers

→ Recovery is when you grow — prioritize sleep, nutrition, and rest days

What's Inside This Program



4-Day Training Split

Lower Body Quad Focus • Upper Push • Rest/Recovery • Lower Body Hip Focus • Upper Pull



Progressive Periodization

4-week cycle with strategic intensity and volume progression, ending with deload week



Evidence-Based Exercises

Every movement is backed by peer-reviewed research for maximum effectiveness



Complete Progress Tracker

Track every exercise, set, rep, and weight across all 4 weeks



Compound + Accessory Work

Heavy compound lifts paired with strategic isolation exercises for complete development



Optimal Volume & Frequency

12-18 sets per muscle group per week with 2x frequency for maximum hypertrophy

Evidence-Based Training Principles

The science behind this program



Progressive Overload

The cornerstone of strength and muscle growth. Research by Schoenfeld et al. (2017) shows progressive increase in mechanical tension is essential for hypertrophy.

- Week 1: Establish baseline with proper form
- Week 2: Increase volume (sets/reps)
- Week 3: Increase intensity (weight)
- Week 4: Peak then deload for recovery



Compound Movements

Multi-joint exercises recruit maximum muscle fibers. Studies show compound lifts produce greater

testosterone and growth hormone response.

- Squats: Quads, glutes, core, back
- Deadlifts: Full posterior chain
- Bench/OHP: Chest, shoulders, triceps
- Rows/Pull-ups: Back, biceps, rear delts



Optimal Volume & Frequency

Meta-analysis by Schoenfeld et al. (2019) shows 10-20 sets per muscle group per week optimal for hypertrophy. This program provides 12-18 sets.

- Each muscle trained 2x per week
- 48-72 hours recovery between sessions
- Volume increases weeks 1-3, deload week 4



Periodization

Systematic variation in training variables prevents plateaus. Research supports undulating periodization for continuous adaptation.

- Varied rep ranges for complete development
- Strategic deload prevents overtraining
- Intensity cycles: 60-70% → 75-85% → deload



Key Research References

• **Schoenfeld, B. J., et al. (2017).** "Dose-response relationship between weekly resistance training volume and increases in muscle mass." *Journal of Sports Sciences*, 35(11), 1073-1082.

- **Contreras, B., et al. (2015).** "A comparison of gluteus maximus, biceps femoris, and vastus lateralis EMG activity in the back squat and barbell hip thrust exercises." *Journal of Applied Biomechanics*, 31(6), 452-458.
- **Kraemer, W. J., & Ratamess, N. A. (2004).** "Fundamentals of resistance training: progression and exercise prescription." *Medicine & Science in Sports & Exercise*, 36(4), 674-688.
- **American College of Sports Medicine (2009).** "Progression models in resistance training for healthy adults." *Medicine & Science in Sports & Exercise*, 41(3), 687-708.

4-Week Progression Strategy

1

WEEK 1

Foundation & Form

Goal:

Establish movement patterns and baseline strength

Intensity:

60-70% 1RM

Progression:

Focus on technique, controlled tempo (3-1-1)

2

WEEK 2

Volume Increase

Goal:

Increase training volume for hypertrophy stimulus

Intensity:

65-75% 1RM

Progression:

Add sets, maintain form, increase time under tension

3

WEEK 3

Intensity Phase

Goal:

Progressive overload with increased weight

Intensity:

70-80% 1RM

Progression:

Increase weight 5-10%, reduce reps slightly

4

WEEK 4

Peak & Deload

Goal:

Test strength gains, then active recovery

Intensity:

75-85% 1RM (Days 1-2), 50-60% 1RM (Deload)

Progression:

Push for PRs early week, then reduce volume 40-50%



Complete Exercise Overview

Your entire 4-day training split at a glance

DAY 1: Lower Body - Quad Dominant

Back Squat

4 sets × 8-10 reps

Romanian Deadlift

3 sets × 10-12 reps

Bulgarian Split Squat

3 sets × 8-10 reps

Leg Press

3 sets × 12-15 reps

Leg Curl

3 sets × 12-15 reps

Seated Calf Raise

4 sets × 15-20 reps

DAY 2: Upper Body - Push

Barbell Bench Press

4 sets × 8-10 reps

Incline Dumbbell Press

3 sets × 10-12 reps

Overhead Press

4 sets × 8-10 reps

Dips

3 sets × 8-12 reps

Lateral Raises

4 sets × 12-15 reps

Tricep Pushdowns

3 sets × 12-15 reps

DAY 3: Rest or Active Recovery

30-45 minutes of light activity: walking, yoga, stretching, or foam rolling

DAY 4: Lower Body - Hip Dominant

Conventional Deadlift

4 sets × 6-8 reps

Front Squat

3 sets × 8-10 reps

Walking Lunges

3 sets × 10 steps/leg

Hip Thrust

4 sets × 10-12 reps

Leg Extension

3 sets × 12-15 reps

Standing Calf Raise

4 sets × 15-20 reps

DAY 5: Upper Body - Pull

Barbell Row

4 sets × 8-10 reps

Pull-ups/Lat Pulldown

4 sets × 8-12 reps

Seated Cable Row

3 sets × 10-12 reps

Face Pulls

4 sets × 15-20 reps

Barbell Curl

3 sets × 10-12 reps

Hammer Curls

3 sets × 10-12 reps

Shrugs

3 sets × 12-15 reps

DAY 6 & 7: Rest & Recovery

Full rest days. Focus on sleep, nutrition, hydration, and optional light activity.

4

Training Days

25+

Total Exercises

60-75

Minutes/Session

2x

Muscle Frequency



Quick Reference Tips:

- ✓ **Rest 2-3 min** between compound lifts (squats, deadlifts, bench)
- ✓ **Rest 1-2 min** between isolation exercises
- ✓ **Warm up properly:** 5-10 min cardio + 2-3 warm-up sets
- ✓ **Track everything** in the progress tracker section

DAY 1

60-75 minutes

Lower Body - Quad Dominant

Barbell Back Squat

Rest: 3 minutes

4 sets



Weekly Progression:

Week 1
8-10 reps

Week 2
10-12 reps

Week 3
6-8 reps

Week 4
5 reps (test), then deload 12-15 reps

Scientific Evidence:

Gold standard for lower body strength. Activates vastus lateralis, vastus medialis, rectus femoris, and gluteus maximus. Research shows 70-85% 1RM optimal for strength-hypertrophy

Proper Form Cues:

- 1 Feet shoulder-width, toes slightly out (5-15°)
- 2 Brace core, chest up, eyes forward
- 3 Descend until thighs parallel or below
- 4 Drive through midfoot, knees tracking over toes
- 5 Full hip extension at top

Romanian Deadlift (RDL)

Rest: 2-3 minutes

3 sets

Weekly Progression:

Week 1
10-12 reps

Week 2
12-15 reps

Week 3
8-10 reps

Week 4
6-8 reps, then deload 15 reps

Scientific Evidence:

Superior hamstring and glute activation. EMG studies show 70-80% greater hamstring activation vs leg curls. Eccentric loading promotes muscle growth

Proper Form Cues:

1 Slight knee bend (15-20°), maintain throughout

2 Hinge at hips, push hips back

3 Bar travels close to shins/thighs

4 Stretch hamstrings until bar at mid-shin

5 Drive hips forward to return

Bulgarian Split Squat

Rest: 90 seconds

3 sets per leg

Weekly Progression:

Week 1
8-10 reps

Week 2
10-12 reps

Week 3
8-10 reps

Week 4
12-15 reps (deload)

Scientific Evidence:

Unilateral training reduces strength imbalances. Research shows similar quad activation to back squat with reduced spinal loading

Proper Form Cues:

- 1 Rear foot elevated 12-18 inches
- 2 Front foot far enough forward (3-4 feet)
- 3 Descend until rear knee nearly touches floor
- 4 Keep weight on front heel, shin can angle forward
- 5 Drive through front heel

Leg Press

Rest: 2 minutes

3 sets

Weekly Progression:

Week 1
12-15 reps

Week 2
15-20 reps

Week 3
10-12 reps

Week 4
20-25 reps (deload)

Scientific Evidence:

Machine-based training allows higher volume with reduced CNS fatigue. Effective for hypertrophy when taken close to failure

Proper Form Cues:

- 1 Feet shoulder-width, mid-platform
- 2 Full range of motion (knees to chest)
- 3 Avoid lower back rounding
- 4 Controlled eccentric (3 seconds)
- 5 Explosive concentric

Leg Curl (Lying or Seated)

Rest: 60-90 seconds

3 sets

Weekly Progression:

Week 1
12-15 reps

Week 2
15-20 reps

Week 3
10-12 reps

Week 4
15-20 reps (deload)

Scientific Evidence:

Isolated hamstring work. Research supports 12-20 rep range for hamstring hypertrophy with moderate to high volume

Proper Form Cues:

- 1 Full stretch position (eccentric)
- 2 Curl to maximal contraction
- 3 Squeeze at top for 1-2 seconds
- 4 Slow eccentric (3-4 seconds)
- 5 Avoid hip extension/compensating

Seated Calf Raise

Rest: 60 seconds

4 sets

Weekly Progression:

Week 1
15-20 reps

Week 2
20-25 reps

Week 3
12-15 reps (heavier)

Week 4
25-30 reps (deload)

Scientific Evidence:

Seated variation emphasizes soleus muscle. Higher rep ranges (15-30) optimal for calf hypertrophy per research

Proper Form Cues:

-  Adjust pad over knees, balls of feet on platform
-  Full stretch at bottom (heels below toes)
-  Rise as high as possible on toes
-  Pause at top contraction (2 seconds)
-  Control descent, feel deep stretch in soleus

DAY 2

60-75 minutes

Upper Body - Push

Barbell Bench Press

Rest: 3 minutes

4 sets

Weekly Progression:

Week 1
8-10 reps

Week 2
10-12 reps

Week 3
6-8 reps

Week 4
5 reps (test), then deload 12-15 reps

Scientific Evidence:

Primary upper body pressing movement. EMG shows maximal pectoralis major activation. Compound movement recruits chest, anterior deltoids, triceps

Proper Form Cues:

1 Grip slightly wider than shoulder-width

2 Retract scapula, arch upper back

3 Bar touches lower chest (nipple line)

4 Elbows 45° angle (not flared 90°)

5 Drive feet into floor, press explosively

Incline Dumbbell Press

Rest: 2-3 minutes

3 sets

Weekly Progression:

Week 1
10-12 reps

Week 2
12-15 reps

Week 3
8-10 reps

Week 4
12-15 reps (deload)

Scientific Evidence:

30-45° incline maximizes upper pectoralis (clavicular head) activation. Dumbbell use increases ROM and stabilizer recruitment

Proper Form Cues:

- 1 Bench at 30-45° angle
- 2 Dumbbells start at shoulder level
- 3 Press up and slightly inward
- 4 Lower until stretch in upper chest
- 5 Control eccentric, explosive concentric

Standing Overhead Press (OHP)

Rest: 2-3 minutes

4 sets

Weekly Progression:

Week 1
8-10 reps

Week 2
10-12 reps

Week 3
6-8 reps

Week 4
10-12 reps (deload)



Scientific Evidence:

Best shoulder mass builder. Research shows greater deltoid activation than seated variations due to core stabilization requirements



Proper Form Cues:

1

Feet hip-width, brace core hard

2

Bar at clavicle, elbows slightly forward

3

Press straight up (move head back)

4

Lock out overhead, shrug at top

5

Lower controlled to clavicle

Dips (Weighted if possible)

Rest: 2 minutes

3 sets



Weekly Progression:

Week 1

8-12 reps

Week 2

10-15 reps

Week 3

6-10 reps (add weight)

Week 4

12-15 reps (bodyweight, deload)

Scientific Evidence:

Compound pressing movement. EMG shows high triceps brachii and lower pectoralis activation. Closed-chain exercise superior for functional strength

Proper Form Cues:

- 1 Slight forward lean for chest emphasis
- 2 Descend until upper arms parallel to floor
- 3 Don't flare elbows excessively
- 4 Press through palms explosively
- 5 Full lockout at top

Lateral Raises

Rest: 60-90 seconds

4 sets

Weekly Progression:

Week 1
12-15 reps

Week 2
15-20 reps

Week 3
10-12 reps

Week 4
15-20 reps (deload)

Scientific Evidence:

Isolated middle deltoid work. Research supports higher volume (15-25 sets/week) for shoulder hypertrophy

Proper Form Cues:

- 1 Slight forward lean (10-15°)
- 2 Lead with elbows, not hands
- 3 Raise to shoulder height (parallel)
- 4 Slight pause at top
- 5 Slow eccentric (3 seconds)

Tricep Pushdowns

Rest: 60-90 seconds

3 sets

Weekly Progression:

Week 1
12-15 reps

Week 2
15-20 reps

Week 3
10-12 reps

Week 4
15-20 reps (deload)

Scientific Evidence:

Isolated triceps work emphasizes lateral head. Cable resistance provides constant tension throughout ROM

Proper Form Cues:

- 1 Elbows pinned to sides
- 2 Full elbow extension at bottom
- 3 Squeeze triceps at bottom
- 4 Controlled return (don't let weight pull)
- 5 Avoid leaning/using body momentum

DAY 3

30-45 minutes

Rest or Active Recovery

Active Recovery Session

Rest: N/A

1 session

Weekly Progression:

Week 1
20-30 minutes

Week 2
20-30 minutes







Week 3
20-30 minutes

Week 4
20-30 minutes

Scientific Evidence:

Low-intensity cardio promotes recovery without interfering with strength gains. Research shows active recovery increases blood flow for nutrient delivery and waste removal, enhancing recovery between intense training days

Proper Form Cues:

-  Choose low-impact activity: Walk, bike, swim, elliptical, or row
-  Keep heart rate 50-60% of max (conversational pace)
-  Focus on movement quality, not intensity
-  Promote blood flow to muscles worked in previous sessions
-  Optional: Add 10-15 minutes of stretching or foam rolling
-  Listen to your body - complete rest is also acceptable

DAY 4

60-75 minutes

Lower Body - Hip Dominant

Conventional Deadlift

Rest: 3-4 minutes

4 sets

Weekly Progression:

Week 1
6-8 reps

Week 2
8-10 reps

Week 3
5-6 reps

Week 4
3-5 reps (test), then deload 10 reps

Scientific Evidence:

King of posterior chain. Activates erector spinae, glutes, hamstrings, lats, traps. Research shows highest testosterone response of all exercises

Proper Form Cues:

- 1 Feet hip-width, bar over midfoot
- 2 Grip just outside legs, arms straight
- 3 Chest up, shoulders over bar
- 4 Brace core, pull slack out of bar
- 5 Drive through floor, extend hips and knees
- 6 Lock out with glutes, don't hyperextend

Front Squat

Rest: 2-3 minutes

3 sets

Weekly Progression:

Week 1
8-10 reps

Week 2
10-12 reps

Week 3
6-8 reps

Week 4
10-12 reps (deload)

Scientific Evidence:

More upright torso reduces lumbar stress. Research shows similar quad activation to back squat with greater core demand

Proper Form Cues:

1 Front rack position (elbows high)

2 Upper back tight, chest up

3 Descend staying upright

4 Drive elbows up out of hole

5 Knees forward and out

Walking Lunges

Rest: 90-120 seconds

3 sets

Weekly Progression:

Week 1
10 steps per leg

Week 2
12 steps per leg

Week 3
8 steps per leg (heavier)

Week 4
15 steps per leg (deload)

Scientific Evidence:

Unilateral movement pattern improves balance and coordination. Dynamic movement enhances functional strength

Proper Form Cues:

- 1 Long stride forward
- 2 Rear knee nearly touches floor
- 3 Torso upright throughout
- 4 Drive through front heel
- 5 Alternate legs walking forward

Hip Thrust

Rest: 2 minutes

4 sets

Weekly Progression:

Week 1
10-12 reps

Week 2
12-15 reps

Week 3
8-10 reps (heavier)

Week 4
15-20 reps (deload)

Scientific Evidence:

Maximal glute activation (>100% more than squats per EMG). Bret Contreras research shows superior for glute hypertrophy

Proper Form Cues:

- 1 Upper back on bench, bar over hips
- 2 Feet flat, knees bent 90° at top
- 3 Drive through heels
- 4 Squeeze glutes hard at top (posterior pelvic tilt)
- 5 Slow eccentric, explosive concentric

Leg Extension

Rest: 60-90 seconds

3 sets

Weekly Progression:

Week 1
12-15 reps

Week 2
15-20 reps

Week 3
10-12 reps

Week 4
20-25 reps (deload)

Scientific Evidence:

Isolated quad work. Research shows effective for VMO (vastus medialis oblique) development when taken to failure

Proper Form Cues:

- 1 Adjust seat for knee alignment
- 2 Full extension at top
- 3 Squeeze quads at lockout
- 4 Slow eccentric (3-4 seconds)
- 5 Full ROM to maximize hypertrophy

Standing Calf Raise

Rest: 60 seconds

4 sets

Weekly Progression:

Week 1
15-20 reps

Week 2
20-25 reps






Week 3
12-15 reps (heavier)

Week 4
25-30 reps (deload)

Scientific Evidence:

Standing variation emphasizes gastrocnemius. Higher rep ranges (15-30) optimal for calf hypertrophy per research

Proper Form Cues:

-  Balls of feet on edge
-  Full stretch at bottom (heels below toes)
-  Rise as high as possible on toes
-  Pause at top contraction
-  Control descent, feel stretch

DAY 5

60-75 minutes

Upper Body - Pull

Barbell Row (Bent-Over)

Rest: 2-3 minutes

4 sets



Weekly Progression:

Week 1
8-10 reps

Week 2
10-12 reps

Week 3
6-8 reps

Week 4
10-12 reps (deload)

Scientific Evidence:

Compound back exercise. EMG shows high lat, rhomboid, and mid-trap activation. Essential for balanced push/pull ratio

Proper Form Cues:

- 1 Hip hinge, torso 45° angle
- 2 Grip slightly wider than shoulder-width
- 3 Pull to lower chest/upper abdomen
- 4 Lead with elbows, not hands
- 5 Squeeze shoulder blades together at top

Pull-Ups or Lat Pulldown

Rest: 2-3 minutes

4 sets

Weekly Progression:

Week 1
8-12 reps

Week 2
10-15 reps

Week 3
6-10 reps (add weight if pull-ups)

Week 4
12-15 reps (deload)

Scientific Evidence:

Primary vertical pulling movement. Research shows pull-ups activate lats and biceps more than lat pulldowns, but both effective

Proper Form Cues:

- 1 Grip shoulder-width or slightly wider
- 2 Hang with full arm extension
- 3 Pull chest to bar (pull-up) or bar to chest (pulldown)
- 4 Lead with chest, drive elbows down
- 5 Slow eccentric, full stretch at bottom

Seated Cable Row

Rest: 2 minutes

3 sets

Weekly Progression:

Week 1
10-12 reps

Week 2
12-15 reps

Week 3
8-10 reps

Week 4
12-15 reps (deload)

Scientific Evidence:

Mid-back thickness. Cable provides constant tension through ROM. Research supports horizontal pulling for rhomboid and mid-trap hypertrophy

Proper Form Cues:

- 1 Upright torso, slight lean back
- 2 Pull handle to lower chest
- 3 Squeeze shoulder blades together
- 4 Elbows close to body
- 5 Slow eccentric, avoid momentum

Face Pulls

Rest: 60-90 seconds

4 sets

Weekly Progression:

Week 1
15-20 reps

Week 2
20-25 reps

Week 3
12-15 reps

Week 4
20-25 reps (deload)

Scientific Evidence:

Posterior deltoid and rotator cuff strengthening. Research shows crucial for shoulder health and injury prevention

Proper Form Cues:

- 1 Rope attachment at face height
- 2 Pull toward face, hands end by ears
- 3 External rotation at end (hands back)
- 4 Squeeze rear delts and mid-traps
- 5 Higher reps (15-25) for shoulder health

Barbell Curl

Rest: 90 seconds

3 sets



Weekly Progression:

Week 1
10-12 reps

Week 2
12-15 reps

Week 3
8-10 reps

Week 4
12-15 reps (deload)

Scientific Evidence:

Biceps brachii isolation. EMG shows barbell curls activate both long head and short head of biceps effectively

Proper Form Cues:

- 1 Elbows pinned to sides
- 2 Curl to full contraction
- 3 Squeeze biceps at top
- 4 Slow eccentric (3 seconds)
- 5 Avoid swinging/using momentum

Hammer Curls

Rest: 60-90 seconds

3 sets

Weekly Progression:

Week 1
10-12 reps

Week 2
12-15 reps

Week 3
10-12 reps

Week 4
15 reps (deload)

Scientific Evidence:

Targets brachialis and brachioradialis. Neutral grip reduces bicep tendon stress while building forearm size

Proper Form Cues:

1 Dumbbells vertical (neutral grip)

2 Elbows stable at sides

3 Curl to shoulder level

4 Squeeze at top

5 Control descent

Shrugs

Rest: 60-90 seconds

3 sets

Weekly Progression:

Week 1
12-15 reps

Week 2
15-20 reps

Week 3
10-12 reps (heavier)

Week 4
15-20 reps (deload)

Scientific Evidence:

Upper trapezius hypertrophy. Research shows vertical shrugging motion most effective for trap development

Proper Form Cues:

-  Dumbbells or barbell
-  Shrug straight up (not rolling)
-  Squeeze traps at top
-  Hold contraction 1-2 seconds
-  Slow eccentric, full stretch

DAY 6 & 7

Rest & Recovery

Full rest or light activity

Complete Rest or Very Light Activity

Rest: N/A

N/A



Weekly Progression:

Week 1

Rest

Week 2

Rest

Week 3

Rest

Week 4

Rest

Scientific Evidence:

Recovery is when muscle growth occurs. Research shows 48-72 hours needed for muscle protein synthesis after training

Proper Form Cues:

- 1 Prioritize sleep (7-9 hours)
- 2 Hydration (3-4 liters water)
- 3 Adequate protein (1.6-2.2g/kg bodyweight)
- 4 Optional: yoga, walking, stretching
- 5 Manage stress for cortisol control

Performance Nutrition for Muscle Building

Science-based nutrition to maximize strength, recovery & hypertrophy



Step 1: Calculate Your Macros

1 Calculate Maintenance Calories

Formula Options:

us Imperial (lbs)

Bodyweight (lbs) \times 15 = Maintenance Calories

 Metric (kg)

Bodyweight (kg) \times 33 = Maintenance Calories

Your bodyweight:

\times

Multiplier:

=

Maintenance calories:

Examples:

- **180 lbs** \times 15 = 2,700 calories/day (maintenance)
- **82 kg** \times 33 = 2,706 calories/day (maintenance)

2 Choose Your Goal & Adjust Calories



Fat Loss

Maintenance - 300-500 calories

If maintenance = 2,700:

2,200 - 2,400 cal/day



Maintenance

Maintain current weight

If maintenance = 2,700:

2,700 cal/day



Muscle Gain

Maintenance + 200-400 calories

If maintenance = 2,700:

2,900 - 3,100 cal/day

Recommendation for this program: Start with a **+200-300 calorie surplus** for lean muscle gains without excessive fat gain.

3 Calculate Protein (Most Important!)

Target Options:

us Imperial (lbs)

0.8-1.0g per lb bodyweight

 Metric (kg)

1.8-2.2g per kg bodyweight

Your bodyweight:

×

Multiplier:

=

Daily protein (grams):

Examples:

• **180 lbs** × 1.0 = 180g protein/day

• **82 kg** × 2.0 = 164g protein/day

Protein has 4 calories per gram → 180g × 4 = 720 calories from protein

4 Calculate Fats

Target: 25-30% of total calories

Total calories:

×

Percentage:

÷ 9 =

Daily fat (grams):

Example: $3,000 \text{ cal} \times 0.25 = 750 \text{ calories from fat}$

Fat has 9 calories per gram $\rightarrow 750 \div 9 = 83\text{g fat/day}$

5 Calculate Carbs (Remaining Calories)

Formula: $(\text{Total Calories} - \text{Protein Calories} - \text{Fat Calories}) \div 4$

Total calories:

- Protein calories:

- Fat calories:

= Remaining calories:

$\div 4 =$ Daily carbs (g):

Example: $3,000 \text{ cal} - 720 \text{ (protein)} - 750 \text{ (fat)} = 1,530 \text{ remaining}$

Carbs have 4 calories per gram $\rightarrow 1,530 \div 4 = 383\text{g carbs/day}$



Your Target Macros



Total Calories



Protein (g)



Carbs (g)



Fats (g)



Step 2: Meal Timing for Performance



Pre-Workout Nutrition (1-2 hours before)

Goals: Fuel performance, prevent hunger, optimize energy

Recommended:

- 30-40g protein (chicken, greek yogurt, protein shake)
- 40-60g carbs (oatmeal, rice, banana)
- Low fat (easier digestion)

Example: 6oz chicken breast + 1 cup white rice + small banana



Post-Workout Nutrition (within 2 hours)

Goals: Muscle recovery, glycogen replenishment, protein synthesis

Recommended:

- 30-50g protein (whey shake, lean meat)
- 60-100g carbs (rice, potatoes, pasta)
- Moderate fat is fine

Example: Protein shake (40g) + 2 cups white rice + 8oz lean beef



Daily Meal Distribution

Spread protein evenly across 3-5 meals for optimal muscle protein synthesis

3 Meals/Day

50-60g protein per meal

4 Meals/Day

40-50g protein per meal

5 Meals/Day

30-40g protein per meal



Sample Meal Building Guide

Use your calculated macros above to build meals from these food categories:

Lean Proteins (per 6oz / 170g)

Chicken breast: ~50g protein

Lean ground beef: ~48g protein

Salmon/fish: ~40g protein

Greek yogurt (1 cup / 240g): ~20g protein

Eggs (4 whole): ~24g protein

Whey protein (1 scoop / 30g): ~25g protein

Complex Carbs

White rice (1 cup / 195g cooked): ~45g carbs

Sweet potato (8oz / 225g): ~40g carbs

Oatmeal (1 cup / 240g cooked): ~27g carbs

Pasta (2oz / 55g dry): ~42g carbs

Banana (large / 120g): ~30g carbs

Bread (2 slices / 60g): ~24g carbs

Healthy Fats

Olive oil (1 tbsp / 15ml): ~14g fat

Almonds (1oz / 28g): ~14g fat

Peanut butter (2 tbsp / 32g): ~16g fat

Avocado (1/2 medium / 75g): ~15g fat

Eggs (2 whole): ~10g fat

Salmon (6oz / 170g): ~15g fat



How to Build Your Meals:

- 1. Start with protein:** Choose 30-50g protein source (chicken, fish, eggs)
- 2. Add carbs:** Match your calculated carb needs (rice, potatoes, oats)
- 3. Include fats:** Cooking oil, nuts, or naturally occurring fats in proteins
- 4. Add vegetables:** For vitamins, minerals, and fiber (minimal calories)

Example meal: 8oz (225g) chicken breast + 2 cups (390g) rice + 1 tbsp (15ml) olive oil + broccoli = ~700 cal, 60g P, 80g C, 18g F



Evidence-Based Supplements

Only 3 supplements have strong research backing. Food should always come first.

✓ HIGHLY RECOMMENDED

1. Creatine Monohydrate — THE #1 Supplement

Dosage: 5g daily (any time of day, with or without food)

Evidence: 700+ studies show 5-15% strength gains, improved power, enhanced muscle growth

✓ **Safe, effective, inexpensive — this is THE most researched and proven supplement**

2. Whey Protein Powder — Convenience Only

Dosage: 20-40g per serving as needed to hit daily protein goals

When to use: Post-workout, between meals, or when you can't eat solid protein

⚠ **Not essential if you hit protein goals through food, but very convenient**

3. Caffeine (Optional) — Pre-Workout Performance

Dosage: 3-6mg per kg bodyweight (1-2 cups coffee), 30-60 min pre-workout

Evidence: Improves strength, power, endurance, and focus during training

⚠ **Tolerance builds — cycle on/off or save for hard training days**

✗ What NOT to Waste Money On

BCAAs

Unnecessary if eating adequate protein

Testosterone Boosters

No evidence they work in healthy individuals

Fat Burners

Mostly caffeine and marketing, no magic pills

Pre-workout Blends

Overpriced — just buy caffeine + creatine separately

Bottom Line: Creatine is the only supplement with overwhelming evidence. Protein powder is convenient. Caffeine helps performance. Everything else provides minimal benefits compared to proper training, nutrition, and sleep.

😴 Sleep & Recovery

Sleep is when muscle repair occurs. Studies show **7-9 hours** essential for optimal recovery.

- Consistent sleep schedule (same bedtime/wake time)
- Dark, cool room (65-68°F)
- Avoid screens 1 hour before bed
- No caffeine after 2pm

💧 Hydration

Even 2% dehydration reduces strength performance. Aim for **3-4 liters daily**.

- Drink throughout the day, not just during workouts
- 500ml 2 hours pre-workout
- Sip water during training sessions
- Monitor urine color (pale yellow = hydrated)



Important Reminders:

- **Nutrition is 50% of results:** You cannot out-train a bad diet. If you're not seeing progress, fix your nutrition first.
- **Warm-up:** 5-10 minutes general warm-up + specific warm-up sets (2-3 sets with lighter weight before working sets)
- **Form over weight:** Never sacrifice form for heavier weight. Master the movement pattern first.
- **Track your workouts:** Keep a training log. Write down weights, sets, reps to ensure progressive overload.
- **Deload is essential:** Week 4 deload prevents overtraining and allows supercompensation for continued growth.
- **Listen to your body:** If experiencing joint pain or persistent fatigue, take extra rest. Consistency beats intensity.



Complete Progress Tracker

Track every workout • Record weights, sets & reps • Monitor progressive overload



How to Use This Tracker:

- **Format:** Write "Weight x Reps" for each set (e.g., 135lbs x 10, 145lbs x 8, 155lbs x 6)
- **Progressive Overload:** Aim to increase weight or reps each week
- **Track Feelings:** Note energy levels, form quality, or any issues in the Notes section
- **Week 4:** Use deload week to test strength or practice technique with lighter loads

DAY 1: Lower Body - Quad Dominant

Exercise	Week 1	Week 2	Week 3	Week 4 (Deload)
Back Squat				
Romanian Deadlift				
Bulgarian Split Squat				
Leg Press				
Leg Curl				
Seated Calf Raise				
Notes:				

Exercise	Week 1	Week 2	Week 3	Week 4 (Deload)

DAY 2: Upper Body - Push

Exercise	Week 1	Week 2	Week 3	Week 4 (Deload)
Barbell Bench Press				
Incline Dumbbell Press				
Overhead Press				
Dips				
Lateral Raises				
Tricep Pushdowns				

Exercise	Week 1	Week 2	Week 3	Week 4 (Deload)
Notes:				

DAY 3: Rest or Active Recovery

Week 1

Activity:

Duration:

Week 2

Activity:

Duration:

Week 3

Activity:

Duration:

Week 4

Activity:

Duration:

Recovery Notes:

DAY 4: Lower Body - Hip Dominant

Exercise	Week 1	Week 2	Week 3	Week 4 (Deload)
Conventional Deadlift				
Front Squat				
Walking Lunges				
Hip Thrust				
Leg Extension				
Standing Calf Raise				

Exercise	Week 1	Week 2	Week 3	Week 4 (Deload)
Notes:				

DAY 5: Upper Body - Pull

Exercise	Week 1	Week 2	Week 3	Week 4 (Deload)
Barbell Row				
Pull-Ups / Lat Pulldown				
Seated Cable Row				
Face Pulls				
Barbell Curl				
Hammer Curls				

Exercise	Week 1	Week 2	Week 3	Week 4 (Deload)
Shrugs				
Notes:				

DAY 6 & 7: Rest & Recovery

Week 1

Sleep Quality (1-10):

Recovery Feel:

Week 2

Sleep Quality (1-10):

Recovery Feel:

Week 3

Sleep Quality (1-10):

Recovery Feel:

Week 4

Sleep Quality (1-10):

Recovery Feel:

Weekly Reflections:



Body Measurements Tracker

Measurement	Start (Week 0)	Week 2	Week 4	Change
Body Weight (lbs/kg)				
Chest (inches/cm)				
Waist (inches/cm)				
Hips (inches/cm)				
Right Arm (inches/cm)				
Left Arm (inches/cm)				
Right Thigh (inches/cm)				
Left Thigh (inches/cm)				
Body Fat % (optional)				

4-Week Progress Summary

Strength Gains

Biggest Weight Increase:

Best Performing Lift:

Physical Changes

Weight Change (+/-):

Visual Changes Noticed:

Wins & Achievements

Lessons Learned & Next Steps



Tracking Success Tips:

- ✓ **Be Consistent:** Fill out your tracker immediately after each workout while details are fresh
- ✓ **Track Honestly:** Record actual weights used, not what you wish you used
- ✓ **Note Form Quality:** Perfect form at lower weight beats poor form at higher weight
- ✓ **Celebrate Small Wins:** Every extra rep or 5lbs added is progress worth celebrating
- ✓ **Review Weekly:** Look back at your progress each Sunday to plan for the week ahead