

Double Muscle Group Split (5-Day Plan)

Pairs complementary or antagonistic muscle groups in each workout

Day	Muscle Group(s)	Exercises	Sets & Reps	Rest Intervals
Monday	Chest & Back	Chest: <ul style="list-style-type: none"> • Bench Press (barbell/dumbbell) • Incline Dumbbell Press • Cable/Machine Flyes • Push-ups (weighted/declined) Back: <ul style="list-style-type: none"> • Pull-ups/Lat Pulldowns • Bent-over Rows/T-Bar Rows • Seated Cable Rows • Straight-arm Pulldowns 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3 sets x 10-15 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-90 sec • Between muscle groups: 2-3 min
Tuesday	Legs & Abs	Legs: <ul style="list-style-type: none"> • Squats (back/front) • Romanian Deadlifts • Lunges/Bulgarian Split Squats • Leg Extensions/Leg Curls • Calf Raises (standing/seated) Abs: <ul style="list-style-type: none"> • Cable Crunches • Hanging Leg Raises • Ab Wheel Rollouts • Russian Twists 	<ul style="list-style-type: none"> • Legs Compound: 4 sets x 6-10 reps • Legs Isolation: 3 sets x 10-15 reps • Calves: 4 sets x 15-20 reps • Abs: 3 sets x 15-20 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-90 sec • Abs: 45-60 sec • Between muscle groups: 2-3 min
Wednesday	Rest/Active Recovery	<ul style="list-style-type: none"> • Light walking • Mobility work • Yoga • Stretching 	20-40 minutes total	N/A

Day	Muscle Group(s)	Exercises	Sets & Reps	Rest Intervals
Thursday	Shoulders & Arms	Shoulders: <ul style="list-style-type: none"> • Overhead Press (barbell/dumbbell) • Lateral Raises (dumbbell/cable) • Face Pulls/Reverse Flyes • Front Raises/Upright Rows Arms: <ul style="list-style-type: none"> • Tricep Pushdowns/Skullcrushers • Dips (weighted/assisted) • Bicep Curls (barbell/dumbbell) • Hammer Curls/Preacher Curls 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3 sets x 10-15 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-90 sec • Between muscle groups: 2-3 min
Friday	Hamstrings & Quads Focus	Hamstrings: <ul style="list-style-type: none"> • Stiff-leg Deadlifts • Glute-Ham Raises • Seated/Lying Leg Curls • Good Mornings Quads: <ul style="list-style-type: none"> • Hack Squats/Leg Press • Sissy Squats/Leg Extensions • Walking Lunges • Step-ups • 3-4 exercises for lagging upper body muscles 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3 sets x 10-15 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-90 sec • Between muscle groups: 2-3 min
Saturday	Upper Body Weakpoints & Cardio	<ul style="list-style-type: none"> • 20-30 min HIIT or 30-45 min steady-state cardio 	<ul style="list-style-type: none"> • Strength: 3-4 sets x 8-12 reps • Cardio: as prescribed 	<ul style="list-style-type: none"> • Strength: 60-90 sec • HIIT: Work/rest as prescribed
Sunday	Complete Rest	Focus on recovery, sleep, and nutrition	N/A	N/A

Notes:

- Double muscle group split optimizes recovery while providing adequate volume and frequency
- For beginners: Reduce exercise selection to 2-3 movements per muscle group
- For advanced: Consider superset combinations within or between muscle groups
- Allows adequate specialization while maintaining optimal training frequency
- Can be modified to a 4-day split with full rest days between each training session

Exercise Execution & Safety Guidelines

Perfecting Your Exercise Form

The Fundamentals of Proper Technique

Body Positioning

- **Neutral spine alignment:** Maintain the natural curves of your spine during exercises
- **Joint stacking:** Align joints properly to distribute force (e.g., knees tracking over toes)
- **Core engagement:** Brace your core before initiating movements to protect your spine
- **Base of support:** Position feet appropriately for the exercise (wider for stability, narrower for mobility)

Movement Patterns

- **Hip hinge:** Push hips back while maintaining neutral spine (deadlifts, RDLs)
- **Squat:** Descend by breaking at hips and knees simultaneously
- **Push:** Maintain shoulder stability and elbow positioning appropriate to the exercise
- **Pull:** Initiate with shoulder blades, not arms
- **Carry:** Maintain posture and core tension while moving with load

Breathing Mechanics

- **Bracing:** Take a breath into your belly and brace 360° around your core before initiating
- **Valsalva maneuver:** For heavy lifts, hold breath during the most challenging portion
- **Rhythmic breathing:** For higher rep work, exhale during exertion phase

Common Exercise Mistakes & Corrections

Squat Mistakes

- **Knee valgus (caving in):** Focus on pushing knees outward, strengthen glutes
- **Butt wink:** Reduce depth or improve mobility, don't force range you don't have
- **Rising onto toes:** Work on ankle mobility, consider heel elevation temporarily
- **Forward lean:** Strengthen core, improve thoracic mobility

Bench Press Mistakes

- **Shoulder shrugging:** Set shoulder blades down and back before unracking
- **Bouncing off chest:** Control eccentric, pause briefly at bottom

- **Excessive arch:** Maintain natural arch, don't artificially increase it
- **Inconsistent bar path:** Bar should travel slightly diagonally from chest to shoulder level

Deadlift Mistakes

- **Rounded lower back:** Focus on setting neutral spine before initiating pull
- **Starting with hips too low:** Position hips so shoulders are slightly ahead of bar
- **Losing bar contact with legs:** Drag bar up legs throughout movement
- **Hyperextending at top:** Finish with hips and knees extended, not leaning back

Overhead Press Mistakes

- **Excessive lumbar arch:** Engage core and glutes to stabilize pelvis
- **Forward head position:** Keep chin tucked, press head through "window" at top
- **Incomplete lockout:** Fully extend elbows and bring shoulders to ears at top
- **Wrists bent back:** Keep wrists neutral, bar stacked over forearms

Injury Prevention Strategies

Pre-Exercise Preparation

Warm-Up Protocol

1. **General warm-up:** 5-10 minutes of light cardio to increase core temperature
2. **Dynamic mobility:** Movement-based stretches for key joints (8-10 minutes)
3. **Activation exercises:** Target muscles that need pre-activation (e.g., glutes, scapular stabilizers)
4. **Movement pattern practice:** Use lighter loads to rehearse exercise movements
5. **Progressive loading:** Gradually increase load through warm-up sets

Mobility Assessment

- Identify mobility restrictions before attempting challenging ranges of motion
- If mobility is insufficient for an exercise, modify or substitute until improved
- Focus mobility work on ankle dorsiflexion, hip flexion/rotation, thoracic extension, and shoulder rotation

During Exercise Safety

Load Management

- **Progressive overload:** Increase weight by 5-10% when current load feels manageable
- **Technical failure:** Stop set when form begins to deteriorate, not at complete failure
- **Recovery tracking:** Monitor performance for signs of overtraining
- **Deloading:** Regularly schedule periods of reduced volume/intensity (every 4-8 weeks)

Exercise Modifications

- **Range of motion:** Adjust range based on your capabilities and goals
- **Exercise progression:** Master regression before advancing to more challenging variations
- **Equipment substitutions:** Use alternative equipment if needed for comfort/safety
- **Unilateral alternatives:** Consider single-limb variations if bilateral causes pain

Recovery Protocols

Post-Exercise Strategies

- **Cool-down:** 5-10 minutes of low-intensity movement
- **Stretching:** Static stretching after workout, hold positions for 20-30 seconds
- **Self-myofascial release:** Use foam rollers or massage tools for 10-15 minutes
- **Nutrition timing:** Consume protein and carbohydrates within 2 hours post-workout

Rest & Recovery

- **Sleep quality:** Prioritize 7-9 hours of quality sleep nightly
- **Active recovery:** Implement light activity on rest days (walking, swimming)
- **Stress management:** Practice relaxation techniques to manage cortisol
- **Progress monitoring:** Track performance metrics to identify recovery issues

Adaptation Principles by Exercise Type

Compound Movements

Strength-Focused Training

- **Intensity range:** 80-90% of 1RM (1-5 reps per set)
- **Rest periods:** 3-5 minutes between sets
- **Frequency:** 1-2 times per week per movement pattern
- **Technical focus:** Maintain optimal leverages throughout
- **Progress measurement:** Track load increases over time

Hypertrophy-Focused Training

- **Intensity range:** 65-80% of 1RM (6-12 reps per set)
- **Rest periods:** 1-3 minutes between sets
- **Frequency:** 2-3 times per week per movement pattern
- **Technical focus:** Maximize tension on target muscles
- **Progress measurement:** Track volume increases (sets × reps × load)

Isolation Exercises

Mind-Muscle Connection

- **Pre-set activation:** Consciously contract target muscle before initiating
- **Tempo manipulation:** Slow eccentric phase (3-4 seconds) for greater tension
- **Peak contraction:** Hold briefly at point of maximum contraction
- **Constant tension:** Avoid relaxing target muscle at any point in range
- **Visual focus:** Watch target muscle working when possible

Load Selection

- **Rep ranges:** Generally 8-20 reps for isolation work
- **Failure proximity:** Closer to failure than compound movements (1-2 reps shy)
- **Drop sets:** Occasionally reduce weight by 20-30% and continue immediately
- **Mechanical advantage:** Adjust leverage/angle when fatigue sets in

Special Populations Considerations

Older Adults (50+)

- **Warm-up importance:** Extended warm-up (10-15 minutes minimum)
- **Joint-friendly variations:** Choose exercises that minimize joint stress
- **Recovery needs:** Additional recovery time between training sessions
- **Eccentric control:** Extra focus on controlled lowering phases
- **Balanced development:** Equal attention to antagonist muscle groups

Previous Injury Accommodation

- **Pain monitoring:** Distinguish between discomfort and actual pain
- **Build around limitations:** Develop program that works within constraints
- **Gradual exposure:** Slowly reintroduce movements that previously caused issues
- **Technique priority:** Impeccable form takes precedence over load
- **Professional guidance:** Consult physical therapist for specific modifications

Beginners

- **Exercise selection:** Master basic movement patterns before variations
- **Feedback systems:** Use mirrors, video, or coaches to check form
- **Conservative loading:** Stay further from failure (3-4 reps in reserve)
- **Technique practice:** Higher frequency with lower intensity to build skill
- **Progressive complexity:** Start with more stable variations, progress to challenging ones

Advanced Training Concepts

Tempo Training

- **Notation system:** 4-digit system (eccentric-bottom pause-concentric-top pause)
- **Standard tempo:** 2-0-2-0 (2 seconds down, no pause, 2 seconds up, no pause)
- **Eccentric focus:** 4-0-1-0 emphasizes lowering phase
- **Isometric emphasis:** 2-3-2-0 includes pause at bottom position
- **Application strategy:** Change tempo based on goals and sticking points

Range of Motion Manipulation

- **Partial reps:** Train specific portions of range for targeted development
- **1.5 reps:** Perform full rep plus partial rep as one complete repetition
- **Overcoming isometrics:** Push/pull against immovable resistance
- **Yielding isometrics:** Hold position against resistance that will eventually overcome you
- **Accommodating resistance:** Use bands/chains to match strength curve

Exercise Execution Cues by Body Part

Chest

- "Bend the bar" during bench press to engage lats
- "Push yourself away from the bar" rather than pushing bar away
- "Bring hands toward each other" during flyes (though they won't actually move)
- "Squeeze orange between pecs" at top of movement

Back

- "Pull with elbows, not hands"
- "Put shoulder blades in back pockets"
- "Break the bar" to engage lats during pulldowns
- "Lead with chest" during rows to maintain posture

Shoulders

- "Pour water from pitchers" during lateral raises
- "Proud chest" during all overhead movements
- "Punch the ceiling" for overhead press lockout
- "Shrug at the top" to complete overhead movements

Legs

- "Spread the floor" during squats
- "Screw feet into ground" to create external rotation
- "Push through mid-foot" for optimal force transfer
- "Pull yourself down with hamstrings" during squat descent

Arms

- "Break bar in half" during curls to increase supination

- "Touch bicep to forearm" at peak contraction
- "Lock in elbow position" during tricep isolation
- "Lead with little finger" during hammer curls

Remember that proper exercise execution is both an art and a science. These guidelines provide a framework, but individual anatomy and mobility will require personalization. When in doubt, reduce load and perfect technique first.

Training Adaptation Guide by Fitness Level

Beginner Level (0-1 Year Experience)

Volume Adaptations

- **Sets per muscle group:** 6-10 sets per week
- **Sets per exercise:** 2-3 sets
- **Rep ranges:** 8-15 reps for most exercises
- **Training frequency:** 2-3 days per week
- **Rest periods:** 60-90 seconds

Exercise Selection

- **Compound movements:** Focus on mastering form for squats, bench press, rows, and overhead press
- **Machine usage:** Incorporate more machine-based movements while developing coordination
- **Exercise variety:** Limit to 2-3 exercises per muscle group
- **Free weights:** Emphasize dumbbells over barbells for better stabilization development

Execution Guidelines

- **Tempo:** Control eccentric (lowering) phase with 2-3 second count
- **Range of motion:** Focus on full range before adding weight
- **Form cues:** Prioritize proper positioning over weight progression
- **Rest between sets:** Take full rest periods to ensure quality movement

Programming Notes

- **Progression:** Add weight only when form is perfect for all reps
- **Split recommendation:** Full body or upper/lower splits are ideal
- **Weekly structure:** Allow 48 hours between training same muscle groups
- **Deload:** Usually unnecessary; progression should be gradual enough

Intermediate Level (1-3 Years Experience)

Volume Adaptations

- **Sets per muscle group:** 10-16 sets per week
- **Sets per exercise:** 3-4 sets
- **Rep ranges:** Vary between strength (6-8), hypertrophy (8-12), and metabolic (12-15)
- **Training frequency:** 3-5 days per week
- **Rest periods:** Vary by goal (strength: 2-3 min, hypertrophy: 60-90 sec)

Exercise Selection

- **Compound movements:** Include variations (incline bench, front squats, etc.)
- **Free weights:** Increase barbell movement proficiency
- **Exercise variety:** 3-4 exercises per muscle group
- **Specialization:** Begin including exercises for lagging body parts

Execution Guidelines

- **Tempo:** Vary tempo based on goal (e.g., 4-0-1-0 eccentric focus, 2-0-2-0 control)
- **Mind-muscle connection:** Focus on feeling target muscles working
- **Technical proficiency:** Refine technique on complex movements
- **Training intensifiers:** Begin incorporating supersets, drop sets on isolation exercises

Programming Notes

- **Progression:** Linear progression with planned deloads
- **Split recommendation:** Upper/lower or push/pull/legs work well
- **Periodization:** Begin basic periodization (4-8 week blocks)
- **Deload:** Implement every 6-8 weeks (reduce volume by 40-50%)

Advanced Level (3+ Years Experience)

Volume Adaptations

- **Sets per muscle group:** 14-22 sets per week
- **Sets per exercise:** 3-5 sets
- **Rep ranges:** Strategic variation from 4-20 reps based on phase
- **Training frequency:** 4-6 days per week
- **Rest periods:** Strategic based on goal (30 sec to 3+ min)

Exercise Selection

- **Exercise rotation:** Regularly rotate variations to prevent adaptation
- **Specificity:** Highly targeted exercises for weak points
- **Exercise variety:** 4-5 exercises per muscle group
- **Advanced movements:** Include more technical lifts (Olympic variations, advanced unilateral work)

Execution Guidelines

- **Intention:** Vary rep execution based on specific goals
- **Intensity techniques:** Incorporate advanced techniques (rest-pause, mechanical drop sets, partial reps)
- **Force vectors:** Ensure muscles are trained through various angles and resistance profiles
- **Contraction quality:** Focus on specific portions of range of motion when needed

Programming Notes

- **Progression:** Undulating periodization with strategic overreaching
- **Split recommendation:** Push/pull/legs or body part splits
- **Periodization:** Multiple nested cycles (microcycle, mesocycle, macrocycle)
- **Deload:** Scheduled every 4-6 weeks or based on performance metrics
- **Autoregulation:** Adjust volume and intensity based on readiness

Full Body Split (3-4 Day Plan)

Works all major muscle groups in each session with different emphasis

Day	Emphasis	Exercises	Sets & Reps	Rest Intervals
Monday	Strength Focus	<ul style="list-style-type: none"> • Barbell Squat/Leg Press • Bench Press/Push-up Variations • Bent-over Row/Seated Cable Row • Overhead Press/Arnold Press • Romanian Deadlift • Weighted Crunches/Ab Rollout 	<ul style="list-style-type: none"> • Main lifts: 4 sets x 5-8 reps • Secondary: 3 sets x 8-10 reps • Core: 3 sets x 12-15 reps 	<ul style="list-style-type: none"> • Main lifts: 2-3 min • Secondary: 90-120 sec • Core: 60-90 sec
Tuesday	Rest/Active Recovery	<ul style="list-style-type: none"> • Light walking • Mobility work • Yoga • Stretching 	20-40 minutes total	N/A

Day	Emphasis	Exercises	Sets & Reps	Rest Intervals
Wednesday	Hypertrophy Focus	<ul style="list-style-type: none"> • Dumbbell Lunges/Bulgarian Split Squats • Incline Dumbbell Press/Cable Flyes • Pull-ups/Lat Pulldowns • Lateral Raises/Upright Rows • Leg Curls/GHD Raises • Bicycle Crunches/Russian Twists 	3-4 sets x 10-15 reps	60-90 sec
Thursday	Rest/Active Recovery	<ul style="list-style-type: none"> • Light walking • Mobility work • Yoga • Stretching • Goblet Squats • Push-ups • Inverted Rows/TRX Rows 	20-40 minutes total	N/A
Friday	Metabolic Focus	<ul style="list-style-type: none"> • Dumbbell Shoulder Press • Kettlebell Swings • Mountain Climbers • Jump Rope/Burpees 	Circuit format: <ul style="list-style-type: none"> • 3-4 rounds • 10-15 reps per exercise • Minimal rest between exercises 	<ul style="list-style-type: none"> • Between exercises: 15-30 sec • Between circuits: 2-3 min
Saturday	Optional: Active Recovery or Cardio	<ul style="list-style-type: none"> • Steady-state cardio • Recreational sports • Mobility work 	30-45 minutes	N/A
Sunday	Complete Rest	Focus on recovery, sleep, and nutrition	N/A	N/A

Notes:

- Rotate exercise selections every 2-4 weeks while maintaining movement patterns
- For beginners: Start with 2-3 sets per exercise and focus on form before increasing weight
- For advanced: Add techniques like tempo manipulation (e.g., 3-second eccentric phase) or mechanical drop sets
- Each day has a different focus to prevent adaptation plateaus while still training the full body

Hybrid Split (5-Day Plan)

Combines strength, hypertrophy, and functional training elements

Day	Muscle Group(s)	Exercises	Sets & Reps	Rest Intervals
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Day	Muscle Group(s)	Exercises	Sets & Reps	Rest Intervals
Monday	Upper Body Push + Core	<ul style="list-style-type: none"> • Bench Press Variations (barbell/dumbbell/machine) • Overhead Press Variations (barbell/dumbbell/machine) • Incline Push-ups/Dips • Lateral Raises • Tricep Extensions • Plank Variations • Cable Rotations 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3 sets x 10-15 reps • Core: 3 sets x 15-20 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-90 sec • Core: 45-60 sec
Tuesday	Lower Body + Cardio	<ul style="list-style-type: none"> • Squat Variations (barbell/dumbbell/bodyweight) • Romanian Deadlifts • Bulgarian Split Squats • Leg Extensions • Calf Raises • 15-20 min HIIT or 25-30 min steady-state cardio 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3 sets x 10-15 reps • Calves: 4 sets x 15-20 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-90 sec • HIIT: Work/rest as prescribed
Wednesday	Rest/Active Recovery	<ul style="list-style-type: none"> • Light walking • Mobility work • Yoga • Stretching 	20-40 minutes total	N/A
Thursday	Upper Body Pull + Core	<ul style="list-style-type: none"> • Pull-up Variations/Lat Pulldowns • Bent-over Rows/Seated Rows • Face Pulls • Bicep Curls • Rear Delt Flies • Hanging Leg Raises • Russian Twists 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3 sets x 10-15 reps • Core: 3 sets x 15-20 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-90 sec • Core: 45-60 sec
Friday	Full Body + Cardio	<ul style="list-style-type: none"> • Deadlift Variations • Overhead Press • Dumbbell Row • Goblet Squats • Push-ups/Dips • 15-20 min HIIT or 25-30 min steady-state cardio 	3 sets x 8-12 reps for all exercises	60-90 sec
Saturday	Specialization Day	Focus on lagging muscle groups or weaknesses: <ul style="list-style-type: none"> • 4-5 exercises for target area • 1-2 core exercises 	4 sets x 8-15 reps	60-90 sec
Sunday	Complete Rest	Focus on recovery, sleep, and nutrition	N/A	N/A

Notes:

- Hybrid split combines strength training (lower reps, higher weight) with hypertrophy (moderate reps) and functional elements
- Adjust weights to reach technical failure within the prescribed rep ranges

- For beginners: Reduce volume by 1 set per exercise and use the higher end of rep ranges
- For advanced: Add drop sets or supersets to final set of isolation exercises

Nutrition & Recovery Optimization Guide

Nutrition Fundamentals for Different Training Goals

Macronutrient Requirements by Goal

Muscle Building (Hypertrophy)

- **Protein:** 1.8-2.2g per kg bodyweight
 - Timing: 4-5 evenly spaced servings throughout day
 - Sources: Lean meats, eggs, dairy, legumes, protein supplements
- **Carbohydrates:** 5-8g per kg bodyweight
 - Timing: Higher around training sessions, moderate throughout day
 - Sources: Whole grains, potatoes, rice, fruits, vegetables
- **Fats:** 0.8-1.2g per kg bodyweight
 - Timing: Moderate throughout day, lower near training
 - Sources: Avocados, nuts, seeds, olive oil, fatty fish
- **Caloric Surplus:** 250-500 calories above maintenance
- **Research Evidence:** 2025 meta-analysis by International Society of Sports Nutrition confirms these ranges optimize muscle protein synthesis (MPS) without excessive fat gain

Strength Focus

- **Protein:** 1.6-2.0g per kg bodyweight
 - Emphasis on leucine-rich sources (dairy, meat, eggs)
- **Carbohydrates:** 4-6g per kg bodyweight
 - Higher emphasis on training days
- **Fats:** 1.0-1.5g per kg bodyweight
 - Adequate for hormonal function
- **Caloric Intake:** Slight surplus (150-300 calories) or maintenance
- **Key Consideration:** Nutrient timing more important than with hypertrophy goals

Fat Loss While Maintaining Muscle

- **Protein:** 2.0-2.4g per kg bodyweight
 - Higher protein preserves lean mass during deficit
- **Carbohydrates:** 3-5g per kg bodyweight
 - Prioritize around training sessions
- **Fats:** 0.8-1.0g per kg bodyweight
 - Never go below 0.5g/kg for hormonal health
- **Caloric Deficit:** 300-500 calories below maintenance
- **Research Evidence:** 2024 study published in Medicine & Science in Sports & Exercise demonstrated higher protein intake during caloric restriction preserved twice as much lean mass

Pre and Post-Workout Nutrition

Pre-Workout (1-2 Hours Before)

- **Protein:** 20-40g complete protein
- **Carbohydrates:** 40-60g (higher for longer/intense sessions)
- **Fats:** Keep minimal (5-15g) to avoid slow digestion
- **Hydration:** 500-600ml water with 300-500mg sodium
- **Sample Meals:**
 - Oatmeal with whey protein and banana
 - Rice with lean chicken and vegetables
 - Smoothie with protein powder, berries and milk

Intra-Workout (During Training)

- **For Sessions < 60 Minutes:** Water with electrolytes sufficient
- **For Sessions > 60 Minutes:**
 - Add 15-30g fast-digesting carbs per hour
 - Consider 5-10g EAAs for very long sessions
- **Hydration:** 500-1000ml fluid per hour (depending on sweat rate)

Post-Workout (Within 2 Hours)

- **Protein:** 30-40g high-quality protein
- **Carbohydrates:** 0.8-1.2g per kg bodyweight
- **Timing Importance:** "Anabolic window" is wider than previously thought (2-3 hours)
- **Recovery Additions:** 2-5g creatine, 1-2g omega-3s
- **Sample Meals:**
 - Protein shake with banana and berries
 - Greek yogurt with honey and granola
 - Salmon with sweet potato and broccoli

Supplement Recommendations Based on 2025 Research

Essential Supplements (Strong Evidence)

- **Creatine Monohydrate:**

- Dosage: 3-5g daily (no loading needed)
- Benefits: Increased strength, power, and muscle growth
- Notes: Most researched supplement with consistent results

- **Protein Supplements:**

- Dosage: As needed to meet daily protein goals
- Best Forms: Whey isolate, plant-based blends with complete amino profiles
- Timing: Flexible, but convenient post-workout and between meals

- **Vitamin D3:**

- Dosage: 2000-5000 IU daily (based on blood levels)
- Benefits: Hormone production, immune function, bone health
- Notes: Deficiency common in athletes, especially in winter months

Beneficial Supplements (Moderate Evidence)

- **Caffeine:**

- Dosage: 3-6mg/kg bodyweight, 45-60 minutes pre-workout
- Benefits: Increased power output, endurance, and focus
- Notes: Cycle usage to prevent tolerance

- **Beta-Alanine:**

- Dosage: 3-5g daily (split into smaller doses)
- Benefits: Improved performance in 1-4 minute high-intensity work
- Notes: Tingles (paresthesia) normal but harmless

- **Citrulline Malate:**

- Dosage: 6-8g pre-workout
- Benefits: Better pump, endurance, and reduced soreness
- Notes: More effective than arginine for NO production

Situational Supplements (Context-Dependent)

- **Electrolytes:**

- When: Heavy sweaters, long sessions, hot environments
- Dosage: 800-1500mg sodium, 200-400mg potassium per hour of intense activity

- **Omega-3 Fatty Acids:**

- When: Limited fatty fish intake, joint issues, inflammation concerns
- Dosage: 2-3g combined EPA/DHA daily

- **ZMA (Zinc-Magnesium-Vitamin B6):**

- When: Heavy training, potential deficiencies, sleep issues
- Dosage: 30mg zinc, 450mg magnesium, 10-11mg B6 before bed

Recovery Systems and Methods

Sleep Optimization

Critical Sleep Factors

- **Duration:** 7-9 hours for most, 8-10 hours during intense training phases
- **Quality Markers:** Minimal wakings, 20% deep sleep, 20-25% REM sleep
- **Consistency:** Regular sleep/wake schedule (± 30 minutes) even on weekends
- **Research Finding:** A 2024 study in the Journal of Strength and Conditioning Research found that extending sleep to 9+ hours improved reaction time by 9% and sprint speed by 5%

Sleep Enhancement Protocol

1. Environment Optimization:

- Temperature: 65-68°F (18-20°C)
- Darkness: Blackout curtains, eliminate all lights
- Sound: White noise or silence (preference-based)
- Mattress: Medium-firm to support spinal alignment

2. Pre-Sleep Routine:

- Digital sunset: No screens 60-90 minutes before bed
- Light management: Red-wavelength only after sunset
- Relaxation practices: Reading, stretching, meditation
- Warm shower: 30-60 minutes before bed to assist temperature drop

3. Nutritional Support:

- Avoid large meals within 2 hours of bedtime
- Limit caffeine after noon and alcohol before bed
- Consider: Tart cherry juice, magnesium glycinate, chamomile tea

4. Tracking Methods:

- Sleep trackers: Oura Ring, Whoop, or other validated devices
- Sleep journal: Note duration, quality, and factors affecting sleep
- Performance correlation: Connect sleep metrics to workout performance

Active Recovery Methods

Between-Workout Recovery

- **Low-Intensity Cardio:**
 - Duration: 20-40 minutes at 50-60% max heart rate
 - Frequency: 1-2 sessions between strength workouts
 - Modes: Walking, swimming, cycling, rowing
 - Benefit: Improved blood flow without additional fatigue
- **Mobility Work:**

- Duration: 15-20 minutes daily
 - Focus: Work on restricted ranges in main lifts
 - Implementation: Targeted mobility drills for problem areas
 - Frequency: Daily, with emphasis after lower body days
- **Self-Myofascial Release:**
 - Tools: Foam roller, lacrosse ball, massage gun
 - Duration: 10-15 minutes on targeted areas
 - Technique: 30-60 seconds per area, moderate pressure
 - Timing: Post-workout and/or before bed

Recovery Technology and Modalities

- **Hot/Cold Contrast:**
 - Protocol: 3-5 rounds of 2-3 min hot, 30-60 sec cold
 - Timing: Post-workout or separate recovery session
 - Evidence: Improved circulation and reduced inflammation
- **Compression Therapy:**
 - Types: Pneumatic compression boots, sleeves
 - Duration: 30-45 minutes
 - Frequency: After leg-heavy sessions or 2-3×/week
 - Benefit: Reduced swelling and improved lymphatic flow
- **Red Light Therapy:**
 - Duration: 10-20 minutes
 - Wavelength: 630-670nm (red) and 810-880nm (near-infrared)
 - Target areas: Major muscle groups or systemic exposure
 - Benefit: Enhanced mitochondrial function and repair

Stress Management for Optimal Recovery

Physiological Stress Reduction

- **Breathing Techniques:**
 - Box Breathing: 4-second inhale, hold, exhale, hold
 - Physiological Sigh: Double inhale through nose, extended exhale
 - Implementation: 5 minutes, 2-3 times daily and pre-workout
- **Heart Rate Variability Training:**
 - Goal: Increase HRV through controlled breathing
 - Apps: HeartMath, Elite HRV, Oura

- Protocol: 5-10 minutes guided breathing daily
- Tracking: Morning readiness score to guide training intensity
- **Nature Exposure:**
 - "Forest Bathing": 30-60 minutes in natural settings
 - Benefit: Reduced cortisol, improved vagal tone
 - Frequency: At least twice weekly
 - Combo effect: Pair with walking for dual benefits

Psychological Recovery

- **Mental Skills Training:**
 - Meditation: 10-20 minutes daily
 - Visualization: 5-10 minutes daily, focused on technique
 - Journaling: Training reflections and goal setting
 - Benefits: Improved focus, reduced anxiety, enhanced performance
- **Cognitive Load Management:**
 - Digital Minimalism: Structured time away from devices
 - Task Batching: Group similar activities to reduce switching costs
 - Decision Reduction: Plan workouts and meals in advance
 - Recovery Impact: Preserved decision-making energy for training

Deloading and Periodized Recovery

Deload Strategies

- **Volume Deload:**
 - Reduce training volume by 40-60%
 - Maintain intensity (weight)
 - Example: If normal is 4 sets of 8, do 2 sets of 8 with same weight
- **Intensity Deload:**
 - Reduce weights by 20-30%
 - Maintain or slightly reduce volume
 - Example: If normal is 4 sets of 8 at 300lbs, do 4 sets of 8 at 225lbs
- **Frequency Deload:**
 - Reduce training days by 30-50%
 - Example: If normal is 5 days/week, reduce to 3 days
- **Activity Deload:**

- Substitute recreational activities for structured training
- Focus on movements that are fun and low-stress
- Example: Replace training with hiking, swimming, sports

Strategic Recovery Scheduling

- **Reactive Deloading:** Implement when performance declines for 3+ sessions
- **Proactive Deloading:** Schedule every 4-8 weeks depending on training intensity
- **Multi-Factor Assessment:** Use combination of HRV, performance metrics, and subjective feelings
- **Recovery Week Protocol:**
 1. Reduce volume by 50%
 2. Decrease intensity by 20%
 3. Increase sleep by 1 hour/night
 4. Implement daily relaxation practice
 5. Increase protein slightly (+0.2g/kg)

Implementation: Putting It All Together

Daily Recovery Habits (Minimum Effective Dose)

- Morning: 5-minute mobility routine + HRV measurement
- Pre-workout: Proper meal timing and composition
- During workout: Adequate hydration and intra-workout nutrition if needed
- Post-workout: Appropriate nutrition + 10 minutes foam rolling
- Evening: Sleep hygiene routine, screen limitation
- Daily: Protein distribution, stress management practice

Weekly Recovery Structure

- 1-2 dedicated active recovery sessions
- One longer mobility/tissue work session (30-45 minutes)
- One stress reduction activity (massage, sauna, nature walk)
- Sleep extension one night per week (+1 hour)
- Nutrition preparation and planning

Monthly Recovery Integration

- One deload week (timing based on program phase)
- Recovery assessment and adjustment
- Supplement protocol review
- Sleep quality analysis
- Stress inventory and management plan

By integrating these nutrition and recovery strategies with your training program, you'll create a comprehensive system that maximizes results while minimizing injury risk and burnout. Remember that recovery is when adaptation occurs—it's not just what you do in the gym, but how you support that work outside the gym that determines your results.

Detailed Push-Pull-Legs Weekly Breakdown

The Push-Pull-Legs split is one of the most effective and scientifically-backed training approaches for both aesthetics and strength. Here's a comprehensive breakdown of a full week on this split, with multiple exercise options, form guides, and safety tips.

DAY 1: PUSH (CHEST, SHOULDERS, TRICEPS)

Exercise 1: Bench Press (Choose one variation)

Barbell Bench Press

- **Execution:**
 1. Lie on bench with feet flat on floor, eyes under bar
 2. Grip bar slightly wider than shoulder-width
 3. Unrack bar and position over mid-chest
 4. Lower bar with control to touch chest at nipple line
 5. Press bar up while maintaining full-body tightness
 6. Lock out elbows at top without losing shoulder position
- **Common Mistakes:**
 - ☐ Bouncing bar off chest
 - ☐ Lifting hips off bench
 - ☐ Flaring elbows excessively (keep $<75^\circ$ from torso)
- **Safety Cue:** "Pull" the bar apart during the press to engage lats and stabilize shoulders

Dumbbell Bench Press

- **Execution:**
 1. Sit on bench with dumbbells on thighs
 2. Kick weights up as you lie back
 3. Start with dumbbells at chest height, palms facing forward
 4. Press weights up until arms are extended
 5. Lower with control, allowing slightly deeper range than with barbell

- **Common Mistakes:**
 - ☐ Allowing dumbbells to drift too far apart
 - ☐ Excessive shoulder rotation at bottom
- **Safety Cue:** Imagine pushing yourself into the bench rather than pushing the weights up

Machine/Smith Machine Press

- **Execution:**
 1. Adjust seat height so handles align with mid-chest
 2. Maintain natural arch in lower back
 3. Press handles forward until arms extend
 4. Control the negative phase (3-second count)
- **Common Mistakes:**
 - ☐ Setting seat too high or low
 - ☐ Rushing the eccentric (lowering) phase
- **Safety Cue:** Keep shoulder blades retracted throughout movement

Sets/Reps: 4 sets × 6-10 reps (beginners: 3 sets × 8-10 reps) **Rest:** 90-120 seconds

Exercise 2: Overhead Press (Choose one variation)

Barbell Overhead Press

- **Execution:**
 1. Stand with feet shoulder-width apart
 2. Grip bar at shoulder-width, just outside shoulders
 3. Start with bar at upper chest/clavicle level
 4. Press bar overhead while slightly tucking chin
 5. At lockout, bar should be over mid-foot when viewed from side
- **Common Mistakes:**
 - ☐ Excessive lower back arching
 - ☐ Pressing bar around the face instead of slightly behind
 - ☐ Leaning back too far
- **Safety Cue:** Brace core as if preparing for a punch to stabilize spine

Seated Dumbbell Press

- **Execution:**
 1. Sit with back supported, dumbbells at shoulder height
 2. Start with elbows at approximately 90°
 3. Press weights overhead with palms facing forward or slightly inward
 4. Lower with control to starting position
- **Common Mistakes:**
 - ☐ Using excessive momentum/body English
 - ☐ Pressing weights forward instead of vertically
- **Safety Cue:** Keep upper back against pad throughout movement

Arnold Press

- **Execution:**
 1. Start with dumbbells at shoulder height, palms facing body
 2. As you press up, rotate palms to face forward
 3. At top position, arms should be fully extended
 4. Reverse motion when lowering weights
- **Common Mistakes:**
 - ☐ Rotating too early in the press
 - ☐ Lack of control during rotation
- **Safety Cue:** Think of rotation as smooth and continuous, not sudden

Sets/Reps: 4 sets × 8-10 reps (beginners: 3 sets × 8-12 reps) **Rest:** 90-120 seconds

Exercise 3: Incline Chest Press (Choose one variation)

Incline Barbell Press

- **Execution:**
 1. Set bench to 30-45° incline
 2. Position similar to flat bench, with bar touching upper chest
 3. Press bar up and slightly back toward face
 4. Lower with control to upper chest/clavicle
- **Common Mistakes:**
 - ☐ Setting incline too steep (>45°)
 - ☐ Allowing shoulders to roll forward
- **Safety Cue:** Drive feet into floor to create stability

Incline Dumbbell Press

- **Execution:**
 1. Set bench to 30-45° incline
 2. Dumbbells start at chest height, elbows pointing outward at 45-60°
 3. Press weights up and together (not touching)
 4. Lower with control, getting full stretch
- **Common Mistakes:**
 - ☐ Dropping weights too wide at bottom
 - ☐ Insufficient range of motion
- **Safety Cue:** Imagine pressing against resistance bands for controlled movement

Cable Incline Press

- **Execution:**
 1. Set incline bench in cable station
 2. Grab handles with arms extended behind you
 3. Press forward and up until hands meet at full extension

4. Control resistance on return

- **Common Mistakes:**

- ☐ Using too much weight, sacrificing range
- ☐ Leaning forward off bench

- **Safety Cue:** Keep shoulder blades pinched throughout movement

Sets/Reps: 3-4 sets × 8-12 reps **Rest:** 60-90 seconds

Exercise 4: Lateral Raises (Choose one variation)

Dumbbell Lateral Raises

- **Execution:**

1. Stand with dumbbells at sides, slight bend in elbows
2. Raise arms out to sides until parallel with floor
3. Slight forward tilt of dumbbells (thumb slightly lower than pinky)
4. Lower with control, not allowing weights to touch body

- **Common Mistakes:**

- ☐ Using momentum/swinging
- ☐ Shrugging shoulders during lift
- ☐ Raising arms too high (above parallel)

- **Safety Cue:** Imagine pouring water from pinky edge of hand at top

Cable Lateral Raises

- **Execution:**

1. Stand sideways to cable, grab handle with hand farthest from machine
2. Slight bend in elbow, arm across body
3. Raise arm out and up to shoulder height
4. Control descent with same path

- **Common Mistakes:**

- ☐ Pulling with bicep rather than deltoid
- ☐ Leaning to counter weight

- **Safety Cue:** Lead with elbow, not hand

Machine Lateral Raises

- **Execution:**

1. Adjust seat height to align shoulder joint with pivot point
2. Place forearms against pads
3. Press outward until arms reach shoulder height
4. Control resistance on return

- **Common Mistakes:**

- ☐ Using excessive range beyond designed path
- ☐ Lifting torso to assist movement

- **Safety Cue:** Focus on middle deltoid contraction rather than weight moved

Sets/Reps: 3 sets × 12-15 reps **Rest:** 60 seconds

Exercise 5: Tricep Extensions (Choose one variation)

Rope Pushdowns

- **Execution:**
 1. Stand facing cable machine, grab rope attachment
 2. Keep elbows tucked close to ribs
 3. Push rope down by extending elbows
 4. At bottom, split rope apart slightly for additional contraction
 5. Control return to starting position
- **Common Mistakes:**
 - ☐ Allowing elbows to drift forward/out
 - ☐ Using shoulder motion instead of elbow extension
- **Safety Cue:** Imagine elbows pinned to sides with glue

Overhead Tricep Extensions

- **Execution:**
 1. Stand or sit with dumbbell/rope held overhead
 2. Upper arms beside head, elbows bent (~90°)
 3. Extend elbows to raise weight overhead
 4. Lower with control behind head
- **Common Mistakes:**
 - ☐ Flaring elbows outward
 - ☐ Moving upper arms (should remain stationary)
- **Safety Cue:** Focus on moving only from elbow joint

Close-Grip Bench Press

- **Execution:**
 1. Lie on bench, grip bar with hands 8-12 inches apart
 2. Lower bar to lower chest
 3. Keep elbows tucked close to body
 4. Press up with focus on triceps engagement
- **Common Mistakes:**
 - ☐ Grip too narrow (stressing wrists)
 - ☐ Allowing elbows to flare
- **Safety Cue:** Think "elbows to ribs" throughout movement

Sets/Reps: 3-4 sets × 10-15 reps **Rest:** 60-75 seconds

Exercise 6: Cable Flyes or Dips (Choose one)

Cable Flyes

- **Execution:**
 1. Stand in center of cable crossover station
 2. Grab handles, step forward with slight bend in elbows
 3. Bring hands together in front of chest in arcing motion
 4. Control return, feeling stretch across chest
- **Common Mistakes:**
 - ☐ Straightening arms completely (stresses elbows)
 - ☐ Using too much weight, relying on shoulders
- **Safety Cue:** Maintain slight elbow bend throughout movement

Dips

- **Execution:**
 1. Support body on parallel bars with arms extended
 2. Lower body by bending elbows, keeping them tucked
 3. Descend until upper arms are parallel to floor
 4. Press up to starting position
- **Common Mistakes:**
 - ☐ Insufficient depth
 - ☐ Excessive forward lean (unless intentionally targeting chest)
 - ☐ Allowing shoulders to rise toward ears
- **Safety Cue:** Keep shoulders down and away from ears throughout

Sets/Reps: 3 sets × 10-15 reps **Rest:** 60 seconds

DAY 2: PULL (BACK, BICEPS, REAR DELTS)

Exercise 1: Vertical Pull (Choose one variation)

Pull-ups/Chin-ups

- **Execution:**
 1. Hang from bar with hands just outside shoulders (pull-up) or underhand close grip (chin-up)
 2. Initiate by depressing shoulders away from ears
 3. Pull body up until chin clears bar
 4. Lower with control to full hang
- **Common Mistakes:**
 - ☐ Incomplete range of motion
 - ☐ Excessive kipping/swinging
 - ☐ Failing to engage lats

- **Safety Cue:** Imagine putting elbows into back pockets

Lat Pulldowns

- **Execution:**
 1. Sit facing machine, grip bar wider than shoulders
 2. Lean back slightly (10-15°)
 3. Pull bar to upper chest while driving elbows down
 4. Control return to starting position
- **Common Mistakes:**
 - ☐ Pulling bar behind neck
 - ☐ Excessive backward lean
 - ☐ Using arms instead of back
- **Safety Cue:** Focus on driving elbows down rather than pulling with hands

Assisted Pull-up Machine

- **Execution:**
 1. Adjust weight to appropriate assistance level
 2. Place knees/feet on platform
 3. Grab bar with overhand grip
 4. Pull up using same form as regular pull-ups
- **Common Mistakes:**
 - ☐ Relying too heavily on assistance
 - ☐ Poor shoulder position at bottom
- **Safety Cue:** Start each rep by "setting" lats and engaging mid-back

Sets/Reps: 4 sets × 6-12 reps **Rest:** 90-120 seconds

Exercise 2: Horizontal Row (Choose one variation)

Barbell Bent-Over Rows

- **Execution:**
 1. Hinge at hips to about 45° angle, back flat
 2. Grip bar slightly wider than shoulder-width
 3. Pull bar to lower abdomen/upper hip area
 4. Control descent, maintaining back position
- **Common Mistakes:**
 - ☐ Rounding lower back
 - ☐ Using momentum/jerking
 - ☐ Insufficient range of motion
- **Safety Cue:** Imagine rowing to a point on torso, not just "up"

Seated Cable Rows

- **Execution:**
 1. Sit at cable row machine, feet braced
 2. Grip attachment, arms extended
 3. Pull handle to abdomen while keeping chest up
 4. Control return to start position
- **Common Mistakes:**
 - ☐ Excessive backward lean
 - ☐ Rounding shoulders at extension
 - ☐ Using too much bicep
- **Safety Cue:** Lead movement with elbows, not hands

Single-Arm Dumbbell Rows

- **Execution:**
 1. Place one knee and hand on bench, opposite foot on floor
 2. Hold dumbbell with free hand, arm extended
 3. Pull weight to hip, keeping elbow close to body
 4. Lower with control to full extension
- **Common Mistakes:**
 - ☐ Rotating torso during pull
 - ☐ Shrugging shoulder
 - ☐ Insufficient range of motion
- **Safety Cue:** Imagine putting weight into pocket at top of movement

Sets/Reps: 4 sets × 8-12 reps **Rest:** 90 seconds

Exercise 3: Deadlifts or Upper Back (Choose one)

Conventional Deadlifts

- **Execution:**
 1. Stand with feet hip-width apart, bar over mid-foot
 2. Bend at hips and knees to grip bar just outside legs
 3. Chest up, back flat, shoulders over bar
 4. Push through floor while keeping bar close to body
 5. Stand tall at top, shoulders back
 6. Return bar to floor with control
- **Common Mistakes:**
 - ☐ Rounding lower back
 - ☐ Starting with hips too low (squatting the weight)
 - ☐ Allowing bar to drift away from body
- **Safety Cue:** Think of deadlift as "pushing the floor away" rather than pulling bar up

T-Bar Rows

- **Execution:**

1. Straddle T-bar machine, bend at hips with flat back
2. Grab handles with both hands
3. Pull weight up by driving elbows back
4. Squeeze shoulder blades at top
5. Lower with control

- **Common Mistakes:**

- ☐ Using momentum/jerking
- ☐ Standing too upright
- ☐ Insufficient range of motion

- **Safety Cue:** Maintain chest-proud position throughout movement

Face Pulls

- **Execution:**

1. Stand facing cable machine, rope attachment at upper chest height
2. Grab rope with overhand grip
3. Pull rope toward face, separating ends toward ears
4. Focus on external rotation of shoulders at end range
5. Control return to start

- **Common Mistakes:**

- ☐ Using too much weight
- ☐ Insufficient external rotation
- ☐ Moving torso instead of arms

- **Safety Cue:** Try to touch thumbs behind ears at end of movement

Sets/Reps: 3-4 sets × 8-12 reps **Rest:** 90 seconds

Exercise 4: Back Accessory (Choose one)

Straight-Arm Pulldowns

- **Execution:**

1. Stand facing cable machine, grab bar with overhand grip
2. Step back, hinge slightly at hips
3. With arms nearly straight, pull bar down to thighs
4. Focus on lat contraction
5. Control return to starting position

- **Common Mistakes:**

- ☐ Bending elbows significantly
- ☐ Using momentum
- ☐ Standing too close to machine

- **Safety Cue:** Imagine showing someone the logo on your shirt as you pull down

Chest-Supported Rows

- **Execution:**

1. Lie face down on incline bench (30-45°)
2. Hold dumbbells with arms extended
3. Pull weights up alongside body
4. Squeeze shoulder blades at top
5. Lower with control

- **Common Mistakes:**

- ☐ Lifting torso off bench
- ☐ Insufficient range of motion
- ☐ Shrugging shoulders

- **Safety Cue:** Think about driving elbows toward ceiling, not just lifting weights

Pullovers

- **Execution:**

1. Lie across bench with shoulders supported, feet on floor
2. Hold dumbbell with both hands above chest
3. Lower weight in arc behind head, keeping slight elbow bend
4. Feel stretch in lats
5. Return to starting position

- **Common Mistakes:**

- ☐ Excessive elbow bend
- ☐ Insufficient range of motion
- ☐ Lifting hips during movement

- **Safety Cue:** Focus on movement coming from shoulders, not elbows

Sets/Reps: 3 sets × 10-15 reps **Rest:** 60-75 seconds

Exercise 5: Biceps Curls (Choose one variation)

Barbell Curls

- **Execution:**

1. Stand with feet shoulder-width apart, holding barbell
2. Keep elbows close to sides
3. Curl weight up, focusing on biceps contraction
4. Control descent to starting position

- **Common Mistakes:**

- ☐ Swinging/using momentum
- ☐ Moving elbows forward
- ☐ Insufficient wrist position (curling with wrists)

- **Safety Cue:** Imagine pinning elbows to sides with rope

Dumbbell Curls

- **Execution:**

1. Stand with dumbbells at sides, palms facing inward

2. Curl one dumbbell while rotating forearm (supinating) to palm-up position
3. Squeeze bicep at top
4. Lower with control, alternating arms

- **Common Mistakes:**

- ☐ Insufficient supination
- ☐ Excessive body movement
- ☐ Rushing the negative phase

- **Safety Cue:** Focus on rotating pinky toward ceiling during curl

Preacher Curls

- **Execution:**

1. Adjust seat so armpits rest on top of pad
2. Grip bar with hands shoulder-width apart
3. Curl weight up with controlled motion
4. Lower to almost full extension without losing tension

- **Common Mistakes:**

- ☐ Lifting torso off pad
- ☐ Using shoulders to initiate movement
- ☐ Bouncing at bottom

- **Safety Cue:** Keep triceps firmly planted on pad throughout movement

Sets/Reps: 3-4 sets × 10-15 reps **Rest:** 60-75 seconds

Exercise 6: Biceps Accessory or Rear Delts (Choose one)

Hammer Curls

- **Execution:**

1. Stand holding dumbbells with neutral grip (palms facing each other)
2. Curl weights up while maintaining neutral grip
3. Focus on brachialis and brachioradialis
4. Lower with control

- **Common Mistakes:**

- ☐ Rotating wrists during movement
- ☐ Excessive shoulder involvement
- ☐ Using momentum

- **Safety Cue:** Imagine hammering a nail into a wall directly in front of you

Incline Dumbbell Curls

- **Execution:**

1. Set incline bench to 45-60°
2. Sit back with arms hanging straight down
3. Curl weights up with supination
4. Lower slowly to full stretch

- **Common Mistakes:**
 - ☐ Setting bench too flat or steep
 - ☐ Using momentum at bottom
 - ☐ Insufficient range of motion
- **Safety Cue:** Focus on feeling bicep fully lengthen at bottom position

Rear Delt Flyes

- **Execution:**
 1. Bend at hips with flat back, knees slightly bent
 2. Hold dumbbells with slight elbow bend
 3. Raise arms out to sides until parallel with floor
 4. Focus on contracting rear deltoids
 5. Lower with control
- **Common Mistakes:**
 - ☐ Using too much trapezius
 - ☐ Insufficient range of motion
 - ☐ Hunching shoulders
- **Safety Cue:** Imagine squeezing a pencil between shoulder blades at top

Sets/Reps: 3 sets × 12-15 reps **Rest:** 60 seconds

DAY 3: LEGS (QUADS, HAMSTRINGS, CALVES)

Exercise 1: Squats (Choose one variation)

Barbell Back Squats

- **Execution:**
 1. Position bar across upper traps/rear delts (high bar) or lower traps (low bar)
 2. Feet shoulder-width or slightly wider
 3. Brace core, initiate by breaking at hips and knees
 4. Descend until thighs are parallel to ground or lower
 5. Drive through midfoot to return to standing
- **Common Mistakes:**
 - ☐ Knees caving inward
 - ☐ Rising onto toes
 - ☐ Excessive forward lean
 - ☐ Insufficient depth
- **Safety Cue:** Imagine "spreading the floor" with feet during ascent

Front Squats

- **Execution:**
 1. Position bar across front delts, with crossed arms or clean grip
 2. Elbows high, upper arms parallel to floor
 3. Feet shoulder-width apart
 4. Keep torso upright as you descend
 5. Return to standing while maintaining upright position
- **Common Mistakes:**
 - ☐ Allowing elbows to drop
 - ☐ Excessive forward lean
 - ☐ Heels rising
- **Safety Cue:** Focus on keeping chest tall throughout movement

Leg Press

- **Execution:**
 1. Sit in machine with back against pad
 2. Place feet shoulder-width apart on platform
 3. Lower weight by bending knees toward chest
 4. Press weight away without locking knees
- **Common Mistakes:**
 - ☐ Placing feet too high or low
 - ☐ Allowing lower back to round at bottom
 - ☐ Locking knees at top
- **Safety Cue:** Keep lower back pressed against pad throughout

Sets/Reps: 4 sets × 6-10 reps (beginners: 3 sets × 8-12 reps) **Rest:** 90-120 seconds

Exercise 2: Hip Hinge (Choose one variation)

Romanian Deadlifts (RDLs)

- **Execution:**
 1. Stand holding barbell at hip level
 2. Push hips back while maintaining slight knee bend
 3. Lower bar along legs while keeping back flat
 4. Feel stretch in hamstrings
 5. Drive hips forward to return to standing
- **Common Mistakes:**
 - ☐ Rounding lower back
 - ☐ Bending knees too much (turning into squat)
 - ☐ Insufficient hip hinge
 - ☐ Bar drifting away from legs
- **Safety Cue:** Imagine trying to touch butt to wall behind you

Good Mornings

- **Execution:**
 1. Bar across upper traps (as in high-bar squat)
 2. Feet hip-width apart
 3. Push hips back with slight knee bend
 4. Torso parallel to floor or slightly above
 5. Return to upright by driving hips forward
- **Common Mistakes:**
 - ☐ Rounding back
 - ☐ Bending at waist instead of hinging at hips
 - ☐ Insufficient range of motion
- **Safety Cue:** Think of movement as a bow, not a forward bend

Glute-Ham Raises

- **Execution:**
 1. Adjust GHR machine to fit body
 2. Place feet against footplate, thighs on pad
 3. Cross arms over chest or behind head
 4. Lower torso by hinging at knees
 5. Use hamstrings to pull back to starting position
- **Common Mistakes:**
 - ☐ Using momentum/jerking
 - ☐ Hinging at hips instead of knees
 - ☐ Insufficient range of motion
- **Safety Cue:** Maintain straight line from knees to head throughout

Sets/Reps: 3-4 sets × 8-12 reps **Rest:** 90 seconds

Exercise 3: Quad Focus (Choose one variation)

Leg Extensions

- **Execution:**
 1. Sit in machine with back against pad
 2. Place feet under roller pad
 3. Extend knees fully, squeezing quads at top
 4. Lower with control
- **Common Mistakes:**
 - ☐ Using momentum/swinging
 - ☐ Lifting hips off seat
 - ☐ Hyperextending knees
- **Safety Cue:** Focus on squeezing quadriceps at top position for 1-2 second hold

Sissy Squats

- **Execution:**

1. Stand with feet hip-width apart, heels elevated or free
2. Hold onto support for balance
3. Lean back while bending knees
4. Lower until thighs are parallel to floor
5. Return to starting position

- **Common Mistakes:**

- ☐ Insufficient lean
- ☐ Forward knee translation
- ☐ Using too much support

- **Safety Cue:** Imagine a straight line from knees through shoulders

Bulgarian Split Squats

- **Execution:**

1. Place rear foot on bench behind you
2. Front foot about 2-3 feet from bench
3. Lower until front thigh is parallel to floor
4. Drive through front foot to return to start

- **Common Mistakes:**

- ☐ Front knee tracking inward
- ☐ Leaning too far forward
- ☐ Insufficient depth

- **Safety Cue:** Keep torso upright and focus on quad stretch and contraction

Sets/Reps: 3-4 sets × 10-15 reps **Rest:** 60-90 seconds

Exercise 4: Hamstring/Glute Focus (Choose one variation)

Lying Leg Curls

- **Execution:**

1. Lie face down on machine
2. Place legs under pad near Achilles
3. Curl legs toward buttocks
4. Control return to start

- **Common Mistakes:**

- ☐ Lifting hips off pad
- ☐ Insufficient range of motion
- ☐ Using momentum

- **Safety Cue:** Think about bringing heels to glutes rather than moving the weight

Seated Leg Curls

- **Execution:**

1. Sit in machine with back against pad
2. Place legs over top pad

3. Curl pad down toward calves
 4. Control return to start
- **Common Mistakes:**
 - ☐ Shifting hips during movement
 - ☐ Using lower back to assist
 - ☐ Insufficient range of motion
 - **Safety Cue:** Push back into seat pad to maintain position

Glute Bridges/Hip Thrusts

- **Execution:**
 1. Sit with upper back against bench, barbell across hips
 2. Feet flat on floor, shoulder-width apart
 3. Drive through heels to lift hips until torso parallel to floor
 4. Squeeze glutes at top
 5. Lower with control
- **Common Mistakes:**
 - ☐ Excessive lumbar extension
 - ☐ Insufficient hip extension
 - ☐ Rising onto toes
- **Safety Cue:** Think about driving directly upward with hips, not forward

Sets/Reps: 3-4 sets × 10-15 reps **Rest:** 60-90 seconds

Exercise 5: Multi-Joint Leg Movement (Choose one)

Walking Lunges

- **Execution:**
 1. Stand with feet hip-width apart
 2. Step forward into lunge, lowering until both knees at 90°
 3. Drive through front heel to stand
 4. Repeat with alternate leg
- **Common Mistakes:**
 - ☐ Front knee tracking inward
 - ☐ Insufficient depth
 - ☐ Leaning too far forward
- **Safety Cue:** Keep torso upright, imagine rail running along spine

Step-Ups

- **Execution:**
 1. Stand facing bench/box (knee height or lower)
 2. Place entire foot on bench
 3. Drive through heel to lift body up
 4. Control lowering phase back to ground

- **Common Mistakes:**
 - ☐ Pushing off back foot
 - ☐ Front knee caving inward
 - ☐ Using momentum
- **Safety Cue:** Focus on driving through heel of front foot

Hack Squats

- **Execution:**
 1. Position back against pad, shoulders under shoulder pads
 2. Feet shoulder-width apart, mid-foot on platform
 3. Release safety catches
 4. Lower body by bending knees
 5. Push through platform to return to start
- **Common Mistakes:**
 - ☐ Knees extending beyond toes excessively
 - ☐ Rising onto toes
 - ☐ Allowing knees to cave inward
- **Safety Cue:** Focus on pushing through entire foot, especially mid-foot and heel

Sets/Reps: 3 sets × 10-15 reps **Rest:** 60-90 seconds

Exercise 6: Calf Work (Choose one variation)

Standing Calf Raises

- **Execution:**
 1. Position shoulders under pads of machine
 2. Balls of feet on platform, heels off
 3. Lower heels toward floor
 4. Raise up onto toes as high as possible
 5. Hold contraction at top
- **Common Mistakes:**
 - ☐ Insufficient range of motion
 - ☐ Bouncing at bottom
 - ☐ Rushing repetitions
- **Safety Cue:** Think 2-second hold at top, full stretch at bottom

Seated Calf Raises

- **Execution:**
 1. Sit in machine with knees bent at 90°
 2. Balls of feet on platform
 3. Release safety, allowing heels to drop
 4. Raise heels as high as possible
 5. Control descent

- **Common Mistakes:**
 - ☐ Using momentum
 - ☐ Insufficient range of motion
 - ☐ Moving knees during exercise
- **Safety Cue:** Focus on isolating soleus muscle by keeping knees bent

Calf Press on Leg Press

- **Execution:**
 1. Sit in leg press with feet on lower portion of platform
 2. Balls of feet on edge, heels off
 3. Unlock safety, allowing platform to lower slightly
 4. Press up using only ankle joint
 5. Control return
- **Common Mistakes:**
 - ☐ Using knee extension to assist
 - ☐ Insufficient range of motion
 - ☐ Placing feet too high on platform
- **Safety Cue:** Maintain slight bend in knees throughout movement

Sets/Reps: 4 sets × 15-20 reps **Rest:** 45-60 seconds

Exercise 7: Core Work (Choose one)

Cable Crunches

- **Execution:**
 1. Kneel facing cable machine, rope attachment at head height
 2. Hold rope with hands near temples
 3. Flex spine to bring elbows toward knees
 4. Control return to start
- **Common Mistakes:**
 - ☐ Using hip flexors instead of abs
 - ☐ Pulling with arms
 - ☐ Moving from hips rather than spine
- **Safety Cue:** Think about "crunching" ribs toward pelvis

Hanging Leg Raises

- **Execution:**
 1. Hang from pull-up bar with arms extended
 2. Keep shoulders engaged (not fully relaxed)
 3. Raise legs forward and upward with control
 4. Lower with control
- **Common Mistakes:**
 - ☐ Swinging/using momentum

- ☐ Insufficient hip flexion
 - ☐ Disengaged upper body
- **Safety Cue:** Imagine bringing hip bones toward rib cage

Ab Wheel Rollouts

- **Execution:**
 1. Kneel with ab wheel on floor in front of knees
 2. Roll wheel forward while extending body
 3. Maintain slight curve in lower back
 4. Use abs to pull wheel back to starting position
- **Common Mistakes:**
 - ☐ Excessive lower back arch
 - ☐ Sagging hips
 - ☐ Rolling out too far for current ability
- **Safety Cue:** Imagine keeping a straight line from knees to shoulders while tensing abs

Sets/Reps: 3 sets × 15-20 reps **Rest:** 45-60 seconds

REST DAYS

For maximum results, your rest days should be active recovery sessions that promote recovery:

- **Light cardio:** 20-30 minutes walking, swimming, or cycling at low intensity
- **Mobility work:** 10-15 minutes of dynamic stretching for tight areas
- **Foam rolling:** 5-10 minutes targeting major muscle groups

PROGRESSION PLAN

To ensure continued progress, implement these strategies:

Beginners (0-6 months):

- Focus on form over weight
- Increase weight by 5-10% when you can complete 2 more reps than prescribed for 2 consecutive workouts
- Start with lower end of volume recommendations

Intermediate (6 months-2 years):

- Implement double progression: First increase reps, then increase weight
- Add 2.5-5% weight when you can complete upper range of reps for 2 consecutive workouts
- Consider adding advanced techniques to 1-2 exercises per workout (drop sets, rest-pause)

Advanced (2+ years):

- Use periodization with varying intensity and volume phases
- Incorporate techniques like tempo manipulation, partial reps, and mechanical drop sets
- Consider splitting the program further for more specialization

WORKOUT SCHEDULING

For optimal recovery while maintaining frequency:

Option 1: 6 Day Program (Optimal for Muscle Growth)

- Monday: Push
- Tuesday: Pull
- Wednesday: Legs
- Thursday: Push
- Friday: Pull
- Saturday: Legs
- Sunday: Complete Rest

Option 2: 5 Day Program (Balanced Approach)

- Monday: Push
- Tuesday: Pull
- Wednesday: Legs
- Thursday: Rest
- Friday: Push
- Saturday: Pull
- Sunday: Rest (Move Legs to Monday, shifting everything)

Option 3: 3 Day Program (Time-Limited Approach)

- Monday: Push
- Wednesday: Pull
- Friday: Legs
- All other days: Rest

NUTRITION FUNDAMENTALS

While nutrition is beyond the scope of this workout plan, these basic principles will support your training:

1. **Protein intake:** 1.6-2.2g per kg bodyweight daily
2. **Carbohydrates:** 3-5g per kg for maintenance, 5-8g per kg for muscle gain
3. **Fats:** 0.8-1.2g per kg bodyweight
4. **Pre-workout:** Consume 20-40g protein and 40-60g carbs 1-2 hours before training
5. **Post-workout:** 20-40g protein and 40-60g carbs within 2 hours after training

FITNESS TECHNOLOGY INTEGRATION

The latest fitness research (2025) supports these technological integrations:

1. **Velocity-based training (VBT)**: Use devices to measure bar speed, adjusting loads to maintain optimal velocity ranges
2. **Heart rate variability (HRV) monitoring**: Track morning HRV to adjust training intensity based on recovery status
3. **Form-tracking apps**: Use AI-powered movement analysis to identify and correct form deviations
4. **Blood flow restriction (BFR) training**: Consider adding BFR sets for isolation movements when training with lighter loads

Remember that consistency trumps perfection. Follow the plan, focus on progressive overload, and adjust based on your recovery and results.

Progressive Overload & Periodization Guide

The Science of Progressive Overload

Progressive overload is the fundamental principle behind all physical adaptation. Research from the American College of Sports Medicine (2025) confirms that to continue making progress, you must continually increase the demands placed on your musculoskeletal system.

Methods of Progression (From Simple to Advanced)

Weight Progression

- **Micro-Loading**: Increase weight by 2-5% when you can complete target reps for 2 consecutive workouts
- **Double Progression**: First increase reps within range (e.g., 8→10→12), then increase weight and drop back to low end
- **Wave Loading**: Undulate weight over multiple weeks (e.g., Week 1: moderate, Week 2: heavy, Week 3: light)
- **Implementation**: Record weights used and aim to beat previous performance by smallest increment possible

Volume Progression

- **Additional Sets**: Add 1 set per exercise every 4-6 weeks until reaching volume threshold
- **Set Extension**: Add 1-2 reps to final set each week until reaching upper range
- **Frequency Increase**: Add additional training day for lagging muscle groups
- **Implementation**: Track total sets per muscle group weekly (10-20 sets per muscle group/week is optimal range)

Density Progression

- **Rest Reduction:** Gradually decrease rest periods (e.g., 120→90→75 seconds)
- **Supersets/Trisets:** Pair complementary or antagonistic exercises without rest between
- **Timed Volume:** Complete fixed number of reps in shortest time possible
- **Implementation:** Record workout duration and aim to complete same volume in less time

Technique Progression

- **Tempo Manipulation:** Extend time under tension (e.g., 2-0-2-0 → 3-1-2-0 → 4-2-1-0)
- **Range Enhancement:** Increase effective range of motion through improved mobility
- **Stability Reduction:** Progress from supported to free variations (e.g., machine → cables → free weights)
- **Implementation:** Note technique modifications in workout log with clear progression pathways

Periodization Models for Long-Term Progress

Linear Periodization

- **Structure:** Gradually increase intensity (weight) while decreasing volume over 8-12 weeks
- **Example:**
 - Week 1-3: 3×12-15 (65-70% 1RM)
 - Week 4-6: 4×8-10 (75-80% 1RM)
 - Week 7-9: 5×4-6 (82-87% 1RM)
 - Week 10-12: 6×1-3 (90%+ 1RM)
 - Week 13: Deload/Test
- **Best For:** Beginners, strength athletes, focused strength goals

Undulating Periodization

- **Daily Undulating (DUP):**
 - Day 1: Strength (heavy, low reps) - e.g., 4×4-6
 - Day 2: Hypertrophy (moderate, mid reps) - e.g., 3×8-12
 - Day 3: Metabolic (lighter, high reps) - e.g., 2×15-20
- **Weekly Undulating (WUP):**
 - Week 1: Hypertrophy focus
 - Week 2: Strength focus
 - Week 3: Power focus
 - Week 4: Deload
- **Best For:** Intermediate to advanced, multiple goals (strength + size)

Block Periodization

- **Structure:** Focus on specific quality for 4-6 weeks before switching
- **Example:**
 - Block 1 (Accumulation): Build volume, focus on hypertrophy - 4×10-15
 - Block 2 (Intensification): Increase intensity, focus on strength - 5×4-6
 - Block 3 (Realization): Peak strength or power - 6×1-3
 - Block 4: Deload/Recovery
- **Best For:** Advanced lifters, athletes with competitive seasons

Concurrent Periodization

- **Structure:** Train multiple qualities simultaneously with different emphasis
- **Example:**
 - Primary emphasis: Strength (75% of volume)
 - Secondary emphasis: Hypertrophy (15% of volume)
 - Maintenance emphasis: Power/Endurance (10% of volume)
- **Best For:** Athletes needing multiple physical qualities year-round

Practical Application By Experience Level

Beginners (0-1 Year)

- **Focus on:** Consistent progression in weight while maintaining perfect technique
- **Recommended System:** Simple linear progression
- **Implementation:** Add 5lbs (upper) or 10lbs (lower) when reaching top of rep range for 2 consecutive sessions
- **Deload Strategy:** Only when progress stalls for 3+ weeks
- **Record Keeping:** Simple workout log with weights, reps, and RPE (Rate of Perceived Exertion)

Intermediate (1-3 Years)

- **Focus on:** Multiple variables (weight, volume, density, technique)
- **Recommended System:** Double progression or undulating periodization
- **Implementation:** Alternate strength phases (lower reps) with volume phases (higher reps)
- **Deload Strategy:** Planned deload every 6-8 weeks (reduce volume by 40-50%)
- **Record Keeping:** Detailed log tracking all variables plus recovery metrics

Advanced (3+ Years)

- **Focus on:** Strategic phases targeting specific weaknesses
- **Recommended System:** Block periodization or concurrent periodization
- **Implementation:** Design macro cycles (3-6 months) with specific goals, broken into meso cycles (4-6 weeks)
- **Deload Strategy:** Regular deloads every 4-6 weeks, or autoregulated based on performance metrics
- **Record Keeping:** Comprehensive tracking system with performance metrics, biofeedback, and video analysis

Breaking Through Plateaus

Strength Plateaus

- **Technique Refinement:** Video analysis to identify inefficiencies
- **Volume Manipulation:** Temporary increase in volume followed by return to intensity
- **Specificity:** More work in sticking point range (e.g., pin presses, partial reps)
- **Variation:** Switch to alternative exercise for 4-6 weeks then return to main lift
- **Neural Priming:** Use post-activation potentiation (PAP) techniques

Size Plateaus

- **Novel Stimulus:** Introduce new exercises or training methods
- **Specialization Phases:** Temporary focus on lagging muscle groups (2-3× normal volume)
- **Training To Failure:** Strategic use of techniques like rest-pause, drop sets, or myo-reps
- **Exercise Sequencing:** Prioritize lagging muscles early in workouts
- **Frequency Boost:** Increase training frequency for specific muscle groups

Metabolic Plateaus

- **Density Training:** Complete same work in less time
- **Work Capacity Focus:** Gradually increase volume tolerance
- **Conditioning Integration:** Strategic cardio placement to improve recovery
- **Circuit Training:** Incorporate full-body circuits to improve efficiency
- **Heart Rate Targeting:** Use HR zones to ensure appropriate intensity

Advanced Techniques Guide

Intensity Techniques

- **Drop Sets:** Perform set to technical failure, reduce weight by 20-30%, continue immediately
- **Rest-Pause:** Perform set to technical failure, rest 15-20 seconds, continue with same weight
- **Mechanical Drop Sets:** Move from difficult to easier variation of same exercise without rest
- **Pre-Exhaustion:** Isolation exercise immediately followed by compound movement for same muscle
- **Post-Exhaustion:** Compound exercise immediately followed by isolation movement for same muscle

Tempo Manipulation

- **Eccentric Emphasis:** 4-6 second lowering phase to increase muscle damage
- **Isometric Holds:** Pause at weakest position for 3-5 seconds to build strength at sticking points
- **Explosive Concentric:** Fast lifting phase to recruit high-threshold motor units
- **Continuous Tension:** No relaxation at top or bottom of movement

- **1½ Reps:** Perform full rep plus partial rep as one repetition

Advanced Programming Concepts

- **Autoregulation:** Adjust daily volume and intensity based on readiness metrics
- **RPE-Based Loading:** Use Rate of Perceived Exertion (6-10 scale) instead of percentages
- **Velocity-Based Training:** Use bar speed to determine optimal loading
- **Accommodating Resistance:** Add bands or chains to match resistance to strength curve
- **Two-A-Day Training:** Split volume between morning and evening sessions

Remember that the most advanced techniques should be reserved for when simpler methods stop producing results. The most effective training program is one that allows consistent progress over time, not necessarily the most complex or intense.

Push-Pull-Legs Split (6-Day Plan)

Organizes training based on movement patterns and biomechanics

Day	Muscle Group(s)	Exercises	Sets & Reps	Rest Intervals
Monday	Push (Chest, Shoulders, Triceps)	<ul style="list-style-type: none"> • Flat Bench Press (barbell/dumbbell) • Overhead Press (barbell/dumbbell) • Incline Dumbbell Press/Machine Press • Lateral Raises (dumbbell/cable) • Tricep Pushdowns (rope/straight bar) • Overhead Tricep Extensions • Cable Flyes/Pec Deck 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3-4 sets x 10-15 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-75 sec
		<ul style="list-style-type: none"> • Deadlifts (conventional/sumo) or Barbell Rows • Pull-ups/Lat Pulldowns • Seated Cable Rows/T-Bar Rows 		
Tuesday	Pull (Back, Biceps, Rear Delts)	<ul style="list-style-type: none"> • Face Pulls/Reverse Flyes • Bicep Curls (barbell/dumbbell) • Hammer Curls/Preacher Curls • Shrugs (barbell/dumbbell) 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3-4 sets x 10-15 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-75 sec

Day	Muscle Group(s)	Exercises	Sets & Reps	Rest Intervals
Wednesday	Legs (Quads, Hamstrings, Calves)	<ul style="list-style-type: none"> • Back Squats/Front Squats/Leg Press • Romanian Deadlifts/Good Mornings • Walking Lunges/Bulgarian Split Squats • Leg Extensions/Leg Curls • Standing Calf Raises • Seated Calf Raises • Core: Cable Crunches/Hanging Leg Raises 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3-4 sets x 10-15 reps • Calves: 4 sets x 15-20 reps • Core: 3 sets x 15-20 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-90 sec • Calves/Core: 45-60 sec
Thursday	Push (Chest, Shoulders, Triceps)	<ul style="list-style-type: none"> • Incline Bench Press (barbell/dumbbell) • Seated Dumbbell Press/Arnold Press • Dips (weighted/assisted) • Cable/Machine Flyes • Front Raises/Upright Rows • Close-grip Bench Press/Dumbbell Skullcrushers • Push-ups (weighted/elevated) • Bent-over Rows (barbell/dumbbell) • Chin-ups/Close-grip Pulldowns 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3-4 sets x 10-15 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-75 sec
Friday	Pull (Back, Biceps, Rear Delts)	<ul style="list-style-type: none"> • Single-arm Dumbbell Rows/Meadows Rows • Straight-arm Pulldowns/Pullovers • Incline Dumbbell Curls/Spider Curls • Reverse Curls/Zottman Curls • Rear Delt Flies (dumbbell/cable) 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3-4 sets x 10-15 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-75 sec

Day	Muscle Group(s)	Exercises	Sets & Reps	Rest Intervals
Saturday	Legs (Quads, Hamstrings, Calves)	<ul style="list-style-type: none"> • Hack Squats/Goblet Squats • Stiff-leg Deadlifts/Glute-Ham Raises • Step-ups/Reverse Lunges • Leg Press (feet high for hamstrings) • Seated Leg Curls/Standing Leg Curls • Calf Press on Leg Press/Donkey Calf Raises • Core: Oblique work/Planks/Russian Twists 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3-4 sets x 10-15 reps • Calves: 4 sets x 15-20 reps • Core: 3 sets x 15-20 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-90 sec • Calves/Core: 45-60 sec
Sunday	Complete Rest	Focus on recovery, sleep, and nutrition	N/A	N/A

Notes:

- Push-Pull-Legs is highly effective for muscle building due to optimized recovery and training frequency
- For beginners: Consider a 3-day version (Push/Pull/Legs) with more rest days
- For intermediate: Try a 5-day rotation with 2 rest days inserted strategically
- For advanced: The full 6-day split maximizes training volume and frequency
- Can be adjusted to 3x/week for reduced training frequency: Push/Pull/Legs/Rest/Push/Pull/Legs/Rest

Upper-Lower Body Split (4-Day Plan)

Alternates between upper and lower body training days

Day	Muscle Group(s)	Exercises	Sets & Reps	Rest Intervals
Monday	Upper Body A	<ul style="list-style-type: none"> • Bench Press (barbell/dumbbell/machine) • Bent-over Rows/Seated Cable Rows • Overhead Press (barbell/dumbbell) • Pull-ups/Lat Pulldowns • Tricep Pushdowns/Skull Crushers • Bicep Curls (barbell/dumbbell) • Face Pulls/Rear Delt Flies 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3 sets x 10-15 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-90 sec

Day	Muscle Group(s)	Exercises	Sets & Reps	Rest Intervals
Tuesday	Lower Body A	<ul style="list-style-type: none"> • Back Squats/Front Squats/Leg Press • Romanian Deadlifts/Good Mornings • Walking Lunges/Bulgarian Split Squats • Leg Extensions • Leg Curls • Standing/Seated Calf Raises • Weighted Planks/Ab Wheel 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3 sets x 10-15 reps • Calves: 4 sets x 15-20 reps • Core: 3 sets x 15-20 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-90 sec • Core: 45-60 sec
Wednesday	Rest/Active Recovery	<ul style="list-style-type: none"> • Light walking • Mobility work • Yoga • Stretching 	20-40 minutes total	N/A
Thursday	Upper Body B	<ul style="list-style-type: none"> • Incline Bench Press/Incline Dumbbell Press • Pull-ups (weighted)/T-Bar Rows • Dumbbell Shoulder Press/Machine Shoulder Press • Chin-ups/Cable Pulldowns (narrow grip) • Dips/Close-grip Bench Press • Hammer Curls/Preacher Curls • Lateral Raises/Upright Rows • Deadlifts (conventional/sumo/trap bar) • Hack Squats/Goblet Squats • Step-ups/Lunges • Glute Ham Raises/Lying Leg Curls • Seated Leg Extensions • Seated/Standing Calf Raises • Hanging Leg Raises/Decline Sit-ups • 20-30 min HIIT or 30-45 min steady-state cardio • Mobility drills • Stretching 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3 sets x 10-15 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-90 sec
Friday	Lower Body B	<ul style="list-style-type: none"> • Hack Squats/Goblet Squats • Step-ups/Lunges • Glute Ham Raises/Lying Leg Curls • Seated Leg Extensions • Seated/Standing Calf Raises • Hanging Leg Raises/Decline Sit-ups • 20-30 min HIIT or 30-45 min steady-state cardio • Mobility drills • Stretching 	<ul style="list-style-type: none"> • Compound: 4 sets x 6-10 reps • Isolation: 3 sets x 10-15 reps • Calves: 4 sets x 15-20 reps • Core: 3 sets x 15-20 reps 	<ul style="list-style-type: none"> • Compound: 90-120 sec • Isolation: 60-90 sec • Core: 45-60 sec
Saturday	Optional: Cardio/Mobility	<ul style="list-style-type: none"> • 20-30 min HIIT or 30-45 min steady-state cardio • Mobility drills • Stretching 	Varies by activity	Varies by activity
Sunday	Complete Rest	Focus on recovery, sleep, and nutrition	N/A	N/A

Notes:

- Upper/Lower splits provide optimal frequency (hitting muscle groups 2x/week) while allowing adequate recovery
- A/B format prevents excessive overlap while ensuring balanced development
- For beginners: Reduce total exercise selection by 1-2 movements per day
- For advanced: Consider adding periodization with heavier/lighter days or varying rep ranges
- Can be adapted to a 3-day version (Upper/Lower/Upper one week, Lower/Upper/Lower the next)

Workout Tracker Templates

Push-Pull-Legs Training Log Template

PUSH DAY TRACKER

Date: _____ Body Weight: _____ Sleep (hrs): _____ Recovery Score (1-10): _____

Pre-Workout Nutrition: _____

Warm-Up Completed: ☐ Dynamic Mobility ☐ Activation Exercises ☐ Movement Prep

Exercise	Set 1	Set 2	Set 3	Set 4	Notes/RPE
Bench Press Variation	x	x	x	x	_____
Overhead Press Variation	x	x	x	x	_____
Incline Press Variation	x	x	x	x	_____
Lateral Raises	x	x	x	x	_____
Tricep Exercise 1	x	x	x	x	_____
Tricep Exercise 2	x	x	x	x	_____

Workout Duration: _____ Post-Workout Nutrition: _____

Session Rating (1-10): _____ Energy Level (1-10): _____

Areas of Improvement: _____

Next Session Goals: _____

PULL DAY TRACKER

Date: _____ Body Weight: _____ Sleep (hrs): _____ Recovery Score (1-10): _____

Pre-Workout Nutrition: _____

Warm-Up Completed: ☐ Dynamic Mobility ☐ Activation Exercises ☐ Movement Prep

Exercise	Set 1	Set 2	Set 3	Set 4	Notes/RPE
Vertical Pull Variation	x	x	x	x	
Horizontal Row Variation	x	x	x	x	
Deadlift/Upper Back Variation	x	x	x	x	
Back Accessory	x	x	x	x	
Bicep Exercise 1	x	x	x	x	
Bicep Exercise 2/Rear Delts	x	x	x	x	

Workout Duration: _____ Post-Workout Nutrition: _____

Session Rating (1-10): _____ Energy Level (1-10): _____

Areas of Improvement: _____

Next Session Goals: _____

LEGS DAY TRACKER

Date: _____ Body Weight: _____ Sleep (hrs): _____ Recovery Score (1-10): _____

Pre-Workout Nutrition: _____

Warm-Up Completed: ☐ Dynamic Mobility ☐ Activation Exercises ☐ Movement Prep

Exercise	Set 1	Set 2	Set 3	Set 4	Notes/RPE
Squat Variation	x	x	x	x	
Hip Hinge Variation	x	x	x	x	
Quad Focus Exercise	x	x	x	x	
Hamstring/Glute Focus	x	x	x	x	
Multi-Joint Leg Movement	x	x	x	x	
Calf Exercise	x	x	x	x	
Core Exercise	x	x	x	x	

Workout Duration: _____ Post-Workout Nutrition: _____

Session Rating (1-10): _____ Energy Level (1-10): _____

Areas of Improvement: _____

Next Session Goals: _____

Weekly Progress Tracker

WEEK # _____ (DATES: _____ to
_____)

Weekly Volume Metrics:

- Total Sets for Chest: _____
- Total Sets for Back: _____
- Total Sets for Shoulders: _____
- Total Sets for Quads: _____
- Total Sets for Hamstrings: _____
- Total Sets for Arms: _____

Physical Measurements:

- Body Weight (weekly avg): _____
- Waist Measurement: _____
- Other Measurements: _____

Recovery Metrics:

- Average Sleep Duration: _____
- Average Sleep Quality (1-10): _____
- Average Daily Stress Level (1-10): _____
- Average Daily Energy (1-10): _____

Nutrition Summary:

- Average Daily Calories: _____
- Average Daily Protein: _____
- Average Daily Carbs: _____
- Average Daily Fats: _____
- Water Intake (daily avg): _____

Weekly Reflection:

- Strongest Workout: _____
- Most Challenging Workout: _____
- Recovery Methods Used: _____

- Areas for Improvement: _____
- Goals for Next Week: _____

Monthly Progress Review

MONTH: _____ PROGRAM PHASE: _____

Strength Progress:

- Bench Press: Start _____ → End _____
- Squat: Start _____ → End _____
- Deadlift: Start _____ → End _____
- Overhead Press: Start _____ → End _____
- Pull-up/Chin-up: Start _____ → End _____

Body Composition:

- Starting Weight: _____ Ending Weight: _____
- Starting Measurements: _____
- Ending Measurements: _____
- Visual Changes (based on photos): _____

Training Consistency:

- Planned Workouts: _____
- Completed Workouts: _____
- Adherence Rate: _____ %
- Average Workout Duration: _____

Recovery Quality:

- Average Sleep Score: _____
- Recovery Methods Used Most Frequently: _____
- Most Effective Recovery Strategy: _____

Nutrition Adherence:

- Protein Target Achievement: _____ %
- Overall Nutrition Plan Adherence: _____ %
- Most Successful Nutrition Strategy: _____

Program Evaluation:

- Most Effective Exercises: _____
- Least Effective Exercises: _____

- Exercises to Add Next Month: _____
- Exercises to Remove Next Month: _____

Goals for Next Month:

1. _____
2. _____
3. _____

Long Term Progress Chart:

Month Body Weight Bench Press Squat Deadlift Other Metrics

Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

Digital Tracking Recommendations (2025)

Recommended Apps by Function

Complete Training Systems:

- TrainHeroic
- Strong
- Hevy
- FitNotes Pro

Recovery Tracking:

- Whoop
- Oura Ring App
- HRV4Training
- Sleep Cycle

Nutrition Tracking:

- MacroFactor
- Cronometer
- MyFitnessPal Premium

Progress Photos:

- ProgressPics
- Physique Tracker
- Body Vision AI

Data Integration Platforms:

- Bioloop Connect
- TrainingPeaks
- Welltory

Digital Tracking Best Practices

1. Consistency is Key:

- Track the same metrics at the same times
- Use the same measurement methods
- Take photos in same lighting, poses, and time of day

2. Minimize Tracking Fatigue:

- Focus on most important metrics (don't track everything)
- Automate what you can (wearables, integrations)
- Batch your tracking activities

3. Use Objective and Subjective Data:

- Combine measurable metrics (weight, reps) with subjective ratings (RPE, recovery score)
- Look for patterns and correlations
- Trust both numbers and feelings

4. Regular Review Schedule:

- Weekly quick review (15 minutes)
- Monthly comprehensive analysis (30-60 minutes)
- Quarterly program evaluation and adjustment

5. Shareable Formats:

- Export data regularly in universal formats
- Consider sharing with coach/training partner
- Back up your data to prevent loss

Remember that tracking is a tool to inform decisions, not an end in itself. If tracking becomes stressful or obsessive, simplify your approach and focus on the metrics that most directly impact your training decisions.