BEING ACTIVE & EXERCISE SHOULD ALWAYS BE DISCUSSED WITH YOUR HEALTHCARE PROVIDER IF YOU HAVE ANY MEDICAL CONDITIONS*

Never push exercise to the point of pain. Pain is your body telling you to cease and desist in what you are doing and rest.

Complete Exercise Guide for ADULTS Age (30–65)*

Weekly Volume Targets (Per ACSM / AHA / WHO Guidelines)

- **Moderate-intensity cardio:** 150–300 minutes per week
- **Vigorous-intensity cardio:** 75–150 minutes per week (or combine both — 1 min vigorous = 2 min moderate)
- **Strength training:** 2–3 days per week, covering all major muscle groups
- **Flexibility/mobility:** 2–3 days per week, 10–15 minutes per session
- **Balance training:** 2–3 days per week — critical after age 45
- **Daily movement:** 8,000–10,000 steps per day or equivalent

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Aerobic / Cardiovascular Training

Goal: Heart health, fat metabolism, improved VO_2 max, mental health, longevity

Moderate-Intensity Examples (can hold a conversation)

- Brisk walking (3–4 mph)
- Cycling (10–12 mph)
- Swimming laps at easy pace
- Elliptical trainer
- Dancing
- Water aerobics
- Doubles tennis
- Hiking
- Rowing at easy pace
- Golf (walking the course)

Vigorous-Intensity Examples (cannot hold a full sentence)

- Jogging or running
- HIIT (high-intensity interval training)
- Cycling faster than 14 mph
- Jump rope

- Singles tennis
- Rowing hard
- Stair climbing
- Kickboxing or cardio classes
- Swimming fast laps

Heart Rate Zones

- **Zone 1 — Recovery:** 50–60% max HR — very easy, active recovery, fat burn
- **Zone 2 — Aerobic base:** 60–70% max HR — comfortable, conversational — the longevity sweet spot; aim for 80% of cardio volume here
- **Zone 3 — Tempo:** 70–80% max HR — somewhat hard, lactate threshold improvement
- **Zone 4 — Threshold:** 80–90% max HR — hard, few words only, VO_2 max gains
- **Zone 5 — Max effort:** 90–100% max HR — all-out, short intervals only
- Estimated max HR = 220 minus your age
- Example: a 55-year-old has ~165 bpm max; Zone 2 target = 99–115 bpm

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Strength / Resistance Training

Goal: Preserve muscle mass, bone density, insulin sensitivity, posture, injury prevention

Equipment Categories and Examples

- **Free weights:** Dumbbells, barbells, kettlebells — best for full range of motion, functional strength, stabilizer muscles
- **Resistance bands:** Loop bands, tube bands, therapy bands — joint-friendly, great for rehab, travel, constant tension throughout the movement
- **Cable machines:** Pulley towers, functional trainers — excellent for isolation and constant tension
- **Weight machines:** Leg press, chest press, lat pulldown, Smith machine — safe for solo training, good for learning movement patterns
- **Bodyweight:** Push-ups, pull-ups, squats, lunges, planks, dips — no equipment needed, highly scalable
- **Suspension / TRX:** TRX straps, gymnastic rings — core, stability, full-body with one anchor point
- **Sandbags / battle ropes / sleds:** Functional, athletic, metabolic conditioning

Sets, Reps, and Load by Goal

- **Muscle endurance:** 2–3 sets × 15–20+ reps, 30–60 sec rest, ~50–60% of your max
- **Hypertrophy (muscle size):** 3–5 sets × 8–12 reps, 60–90 sec rest, ~65–80% of your max
- **Strength:** 3–6 sets × 3–6 reps, 2–5 min rest, ~80–90% of your max
- **Power:** 3–5 sets × 2–5 reps, 3–5 min rest, fast explosive movement

Major Muscle Groups to Train Each Week

- Chest
- Upper and lower back
- Shoulders
- Biceps
- Triceps
- Quadriceps
- Hamstrings
- Glutes
- Calves
- Core and abdominals
- Hip flexors

Weekly Split Options

- **Full-body 3×/week:** Monday / Wednesday / Friday — all groups each session — best for beginners and busy schedules
- **Upper/lower 4×/week:** Upper body Monday and Thursday, lower body Tuesday and Friday
- **Push/pull/legs:** Chest-shoulders-triceps / Back-biceps / Legs — 3 to 6 days per week — intermediate to advanced
- **Minimal 2-day:** Full-body Tuesday and Friday — maintenance option for very busy weeks

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Flexibility, Mobility & Balance

Goal: Joint health, injury prevention, fall risk reduction, posture, longevity

- **Static stretching:** Hamstring stretch, hip flexor stretch, chest opener, shoulder stretch — hold 30–60 seconds × 2–4 reps — do post-workout or in the evening
- **Dynamic stretching:** Leg swings, arm circles, hip circles, walking lunges — do pre-workout as warm-up, 5–10 minutes
- **Yoga:** Hatha, Yin, Vinyasa, or Restorative — 2–3×/week, 30–60 min sessions
- **Pilates:** Mat or reformer — 2–3×/week — excellent for core and spinal health
- **Foam rolling / myofascial release:** Foam roller, lacrosse ball, massage gun — 30–60 seconds per area, pre or post workout
- **Balance training:** Single-leg stance, BOSU ball, balance board, heel-to-toe walk — 2–3×/week, 10 minutes embedded in warm-up or cool-down

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Recovery — Equally Important as Exercise

- **Sleep:** 7–9 hours per night — muscle protein synthesis and growth hormone peak during deep sleep
- **Rest days:** 1–2 per week minimum — active recovery (light walk, easy swim) is better than full rest
- **Protein intake:** 1.6–2.2 grams per kilogram of body weight per day — distribute across 3–4 meals
- **Hydration:** Approximately 0.5 oz per pound of body weight daily — add 16–24 oz per hour of exercise
- **Time between training the same muscle group:** 48 hours minimum — 72 hours for heavy compound lifts like squats and deadlifts
- **Deload weeks:** Every 4–8 weeks, reduce volume by 40–50% for one week to allow full systemic recovery

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Middle-Age–Specific Considerations (40–65)

- **Sarcopenia (muscle loss):** Begins around age 35, accelerates after 50 — 3–8% muscle loss per decade without intervention — progressive resistance training 2–3×/week is the primary countermeasure, as well as increasing protein to 1.2-1.5 times ideal kg body weight. So, if 70 Kg is your IBW (Ideal Body Weight), increase protein to 84-105 grams per day. If you have kidney problems, check with your healthcare provider before increasing protein intake.
- **Bone density loss:** Accelerates with hormonal decline, especially post-menopause — counteract with weight-bearing exercise, impact loading (walking, jogging), and resistance training
- **Metabolic slowdown:** Resting metabolic rate drops ~1–2% per decade — preserve muscle mass to keep metabolism up; Zone 2 cardio improves insulin sensitivity
- **Joint wear:** Cartilage thins, recovery is slower, inflammation is higher — choose low-impact options (swimming, cycling, elliptical); always warm up longer
- **Hormonal changes:** Testosterone declines in men, estrogen in women — heavy compound lifts support testosterone; prioritize stress management and sleep
- **Balance and fall risk:** Proprioception declines with age; falls are a leading cause of injury in those over 50 — dedicate specific balance training 2–3×/week; include single-leg exercises in your strength routine
- **Cardiovascular disease risk:** Rises each decade; VO_2 max declines ~10% per decade without training — consistent Zone 2 cardio preserves VO_2 max and cardiac output
- **Longer recovery time:** Inflammatory response lasts longer in older adults — respect 48–72 hour muscle group recovery windows; never skip deload weeks

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Sample Balanced Week — Intermediate Level

- **Monday:** Upper body strength — push (chest, shoulders, triceps) — 45–60 min
- **Tuesday:** Zone 2 cardio (brisk walk, bike, or swim) + 10 min mobility — 45–60 min
- **Wednesday:** Lower body strength (squats, deadlifts, lunges, calves) + core — 50–60 min
- **Thursday:** Zone 2 cardio or yoga / Pilates — 45–60 min
- **Friday:** Upper body strength — pull (back, biceps) + balance work — 45–60 min
- **Saturday:** Longer Zone 2 session (hike, bike ride, swim) or recreational sport — 60–90 min
- **Sunday:** Active recovery — easy walk, foam rolling, light stretching — 20–30 min

Weekly totals: ~180–210 minutes of moderate cardio, 3 strength sessions covering all major muscle groups, 2–3 flexibility and balance sessions — meets all major guidelines.

Important Safety Note

If you have been sedentary, are over 45, or have any cardiac risk factors or chronic medical problems, always get medical clearance from your healthcare provider before starting any exercise program. A graded exercise stress test may be warranted before beginning a vigorous program.

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