

The Final Edge to Metabolic Control™
Enhancing lifestyles through proven wellness and fitness systems™

GETTING STARTED

It is recommended that anyone who is interested in pursuing a program of physical fitness consult their physician for a complete physical examination. This physical should include, but is not limited to: blood pressure check, heart rate check, body composition analysis, anthropometric measurements, cholesterol test, and maximal or sub-maximal stress tests, particularly for men over 40 and women over 50. Always start slow with any program. The first few weeks are not to make great strength or conditioning gains but to establish motor patterning (coordination) for the exercises.

For resistance exercise, we recommend starting with a weight that you can comfortably get to the upper range of the recommended repetitions. Perform just one set of resistance exercises the first week. If no soreness is experienced the next two days, go to two sets the second week. Progress to three sets the third week, if again, you experience no soreness. You can then raise the weight 5 pounds every time all of the sets can be performed at the upper range with good technique. If soreness is experienced, don't add sets until you can perform without soreness two days later.

For cardiovascular exercise, start with 15 minutes in the target heart range three times per week. Add 5 minutes per week up to 60 minutes, then add one day per week up to six days per week maximum, depending on your goals.

Large muscle groups (Legs, Back, & Chest) require 48-96 hours to recover. Small muscle groups (Shoulders, Arms, Calves, Abdominals) require 24-48 hours to recover. On heavy days, large muscle groups should be worked for 6-9 sets. Small muscle groups should be worked for 3-6 sets. On light days, perform 1-3 sets per muscle group.

Remember, these are only guidelines and may need to be adjusted daily. If you cannot perform within 3 repetitions of the previous set, stop for the day. You've done enough for that muscle group.

Remember to keep the intensity high using the intensification techniques and track the total volume of your workouts. Too much volume is what will lead to overtraining.

Volume = sets x repetitions x weight

Example: If you perform 3 sets of 15 repetitions using 50 pounds, your volume is:

 $3 \times 15 \times 50 = 2250$. If you decide to go lighter, doing 3 sets of 25 repetitions using 35 pounds, your volume is: $3 \times 25 \times 35 = 2625$. So instead of going lighter you've actually performed a higher volume. In this case, you should only perform 2 sets.

The range of motion of a particular exercise is determined most by skeletal structure, but also by flexibility and history of injuries. Only perform a range of motion where you can keep the joints straight and in the same line of pull as the resistance. If anything is felt more than ½ way towards a joint the range of motion is too great for the circumstance.



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ROUTINES

The following are general routines for differing goals.

Weight Loss	We	ight	Loss	
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Leg Extension Leg Curl Standing Calf Vertical Row Machine

Pec Deck Machine Lateral Raise Biceps Machine

Triceps Machine Reverse Crunches

Crunches

General Conditioning

Leg Press Side Lunges Calf Press (on leg press) Vertical Press

Front Pulldowns

Shoulder Press Machine Tricep Pressdowns Dumbbell Curls

Incline Reverse Crunches

Twisting Crunches

Weight Gain

Squats

Stiff-leg Deadlifts Donkey Calf Barbell Rows Bench Press Military Press Barbell Curls

Lying Tricep Extension

Leg Raises Rope Crunches

Limited Time Frame

Deadlifts
Seated Calf
Bench Press
Barbell Rows
Abdominal Machine

30 seconds of cardiovascular activity between each set



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Depending on your goals:

- 1) *Time constraints* Pick exercises that work large areas of the body at the same time: squats or leg press, incline or decline bench, deadlifts or chins or rows or cleans. Pick one from each group and perform 3 sets of each exercise. To maximize benefits, add cardiovascular challenges between sets, such as: steps on a bench or the stationary bike.
- 2) *Bodybuilding* Vary the routines more often, hit the muscle from all angles. Cycle with strength and endurance phases with 8-12 reps as the mainstay (you must constantly try to do more). Aim for medium volume at a high intensity.
- 3) Power lifting Stick with the bench press, squat, and deadlift. Add accessory exercises to keep a strength balance around the joint; lift in the 3-5 rep range for the mainstay but do endurance cycles to give the joints recovery. Aim for higher volume and decreased intensity.
- 4) Fat loss Medium intensity, fast pace, constant movement, no rest, more aerobics, stick with larger compound movements such as stair steppers or rowers to bum more calories.
- 5) *General fitness* Medium intensity, vary the routines periodically, increase the intensity when you feel comfortable at a certain level, and concentrate on the cardiovascular system.
- 6) Sports specific Concentrate on strength early in the off season, then switch to power. Use exercises that duplicate activity as closely as possible with the mainstay using the Olympic lifts and variations (i.e. clean & jerk and snatches). Move to a maintenance level during the season, then an active recovery post season.
- Women Can train the same as men except during their menstrual cycle; this may be lighter training as the body dictates. Increase water intake to help avoid water retention. When body fat levels get very low or intensity very high, women tend not to menstruate (ammenorhea) which shouldn't cause complications unless you are trying to get pregnant. If pregnancy is the goal, body fat should stay higher than about 180/o and intensity should be decreased.
- 8) *Teens* Incorporate a lot of variety. Stay away from heavy compound movements; stick with more isolation exercises and participate in various sports.
- 9) Over 60 Should progress slowly, stay with more isolation exercises, and emphasize a complete conditioning program and lower body strength.



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	Rep continuum	
1-3	12-15	25+
strength	strength/endurance	endurance

SAMPLE 4-DAY SPLIT

Day One: Heavy back & chest*

Day Two: Light legs, Heavy calves & shoulders *

REST

Day Three: Light back & chest, Heavy arms*

Day Four: Heavy legs, calves, & shoulders *

SAMPLE 3-DAY SPLIT

Day One: Heavy back & chest *

Day Two: Legs, calves, and shoulders*

Day Three: Light back & chest, Heavy arms*

SAMPLE 2-DAY SPLIT

Day One: Heavy back, chest & calves, light legs *

Day Two: Heavy legs, shoulders, & arms*

^{*}At some point in training, you should hit all parts of the continuum.



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*Abdominals may be performed each day, provided no resistance is used and the exercises are not done to failure.

INTENSIFICATION, REPETITIONS & SPLITS

Super sets: performing two exercises back to back without rest

<u>Tri sets:</u> performing three sets back to back without rest

Giant sets: performing four or more exercises back to back without rest

<u>Descending sets:</u> after reaching failure, dropping the weight slightly to keep going. No more than three drops are needed

<u>Forced reps:</u> having help to get past the sticking point and continue past failure. No more than 2-3 reps at the end of the set are ever needed

Cheating reps. using momentum to get past the sticking point and continue past failure

<u>Staggered sets:</u> performing an exercise in-between sets of the other exercises to increase volume for a muscle group

<u>21's:</u> perform the bottom half of a movement for 7 reps, the top half of the movement for 7 reps, then the full movement for 7 reps

<u>Negatives:</u> emphasizing the lowering of a movement

Manual: applying resistance to the movement to even out strength curves

<u>Partial reps:</u> limiting the range of motion to be able to handle a heavier weight or continue past failure

<u>Pyramiding:</u> starting with lighter warm up sets and increasing weight each set up to a peak, then working back down

<u>Rest/Pause:</u> using a weight that allows for about 3 reps, resting for 5-15 seconds, performing 1-2 more reps, resting 5-15 seconds, performing 1-2 more reps, etc.