

MPETA SAG 2006 Conference
November 24, 2006

WEIGHT ROOM BASICS

Christine van der Hoek
The Training Zone
471-9950
thetrainingzone@shaw.ca

For proper day-to-day functioning, there are FIVE movements that should be addressed, each involving “triple *joint* action”:

Squats
Lunges
Pushing
Pulling
Rotating

Exercises may begin stationary and then movement added to increase intensity, proprioception, coordination and balance. Smaller movements that are single joint actions may be added for additional overload, to strengthen a weak area and for variety.

SQUATS (gluteals, quadriceps, hamstrings, gastrocnemius)

Squats are the single most functional exercise we do in the gym...BUT, we often change the mechanics and then they become UNfunctional! The triple joint action includes the ankle, knee and hip.

Hips start the movement by flexing and hips are send back. Then the knees flee and then the ankles (dorci) flex. Body weight stays on the heels with chest and shoulders angled forward but not down.

Standard – feet slightly wider than hips
Pliat (or sumo) – hips and toes rotated outward
Lateral – starting in a standard position and stepping sideways into a squat
Step-ups

LUNGES (quadriceps, hamstrings, gastrocnemius and some gluteals)
The triple joint action includes the ankle, knee and hip.

Lunges train the body to DECELERATE...to slow down and/or to stop. Triple joint action includes the knee, ankle and hip. Lunges use gluteal muscles but to a lesser extent than squats since there is less hip extension. Lunges may be done stationary or dynamic.

Deep Knee
Straight Knee
Reaching

PUSHING (pectorals, triceps, deltoids, serratus anterior)

One of the best “pushing” exercises is PUSH-UPS! This uses body weight as resistance and the limbs as levers...just like in real life! It is any movement that requires the body to push a resistance AWAY from the body. The triple joint actions are wrist, elbow and shoulder (and some scapula – shoulder blades).

Push-ups
Bench Press
Tubing or Cable punch
Dips (bench or vertical assisted)
Shoulder presses (Straight, Arnie, “Y”)

PULLING (latissimus dorsi, rhomboids, trapezius, deltoids, teres major, biceps)

A great “pulling” exercise is are CHIN-UPS! It is any movement that requires the body to pull a resistance TOWARDS the body. Like pushing movements, pulling also involves triple joint actions of the wrist, elbow and shoulder (and some scapula – shoulder blades).

Assisted Vertical chin-ups (using equipment or manual assistance)
Horizontal chin-ups (using a squat rack and bench)
Lat Pull Down
Reverse Pull Down
Seated Low Row

ROTATING (obliques, rectus abdominals, erector spinae, quadratus lumborum, + ???)

Tubing or Cable Torso Rotation
Stability Ball Hip/Rotation Curl
Stability Ball Back extension/Rotation
Single Arm/Opposite Leg Cable Row
Squat with Cable or Dumbbell Diagonal Row

The best exercises are those that incorporate REAL mechanics and are multi-joint and multi-movement. As often as possible, try to incorporate a balance component.

CIRCUIT TRAINING

Circuit training is an efficient and effective form of training. It improves the cardiovascular system (aerobic and anaerobic) as well as muscle strength and endurance. There are a couple different ways to do a “circuit”.

Standard Circuit

The most common type of circuit is a series of weight/resistance stations that alternate with an aerobic-type activity. The participant would do a weight station for a pre-set amount of time (EG: 1min) then alternate with an aerobic activity like skipping, jogging-on-the-spot/treadmill, an athletic drill, etc... for a pre-set amount of time (EG: 2mins). The entire circuit could be done up to 3 times through.

Mini Circuit

This usually involves 5 exercises and moves at a quick rate. There is no alteration between weight and cardio segments. The weight segments are done with much lighter resistance and travel is immediate from weight segment to weight segment. This keeps the body at a higher heart rate and often crosses over into an anaerobic state. An example may be:

Upper Body pushing
Upper Body pulling
Lower body
Smaller Upper Body (shoulders, biceps, triceps)
Core/Abdominal

BREATHING

A final note ... Learning to breath correctly not only saves energy and ensures plenty of oxygen for working muscles, it helps to control intra-thoracic pressure and reduces the risk for increased blood pressure – especially diastolic.

Exhale when lifting.
Inhale when lowering.