

DAY 2

III. WORKOUT RULES

- A. Order of Exercise
 - 1. Largest amount of muscle mass to smallest amount of muscle mass, eg., squats -- calf raises
 - 2. Complex exercise to assisting, eg., squats -- leg ext.
 - 3. Agonist to antagonist, eg., leg ext. -- hamstring curls

- B. Sets, reps, and rest
 - 1. Once starting exercise, finish all sets before moving on to next exercise unless instructor dictates pairing exercises.
 - 2. On complex lifts (those involving 3 or more muscle groups), do 5-6 reps. (Bench press and squats).
 - a. Due to necessity of nervous system to work towards synchronous firing and recruitment near 100% in order to get significant strength gains, one must work at a high percentage of their max., thus low reps.
 - 3. On isolation lifts, do 8-15 reps.
 - a. Object of exercise is fatigue not strength, thus high reps.
 - b. Maximize range of motion.
 - c. Keep momentum to a minimum.
 - 4. Rest intervals vary from 3-5 minutes on complex lifts and 1:00 to 2:00 on isolation lifts (with a minimum of 72 hours between repeating a workout).

- C. Programs
 - 1. 4 days/wk
 - a. 2 days upper and 2 days lower, 3-6 sets/muscle group (all novice lifters will be on this program or the 3 day program listed below - instructor to determine)
 - 2. 3 days/wk
 - a. Alternating upper and lower body workouts, Monday, Wednesday and Friday, 3-6 sets/muscle group (all novice lifters will be on this program)
 - 3. 6 days/wk (advanced)
 - a. day 1 -- chest, triceps, shoulders; day 2 -- back, biceps; day 3 -- legs, lower back; repeat order (6-12 sets/muscle group)

4. 3 days on, 1 day off (advanced)
 - a. day 1 -- chest, triceps, shoulder; day 2 -- legs, lower back; day 3 -- back and biceps; day 4 -- off; repeat order (6-15 sets/muscle group)
5. 3 days lifting in 5 days (advanced)
 - a. day 1 --- chest and back; day 2 --- legs, lower back and abs.; day 3 --- off; day 4 - shoulders and arms; day 5 --- off. (6-15 sets/muscle group)

IV. Proper Exercise Machine Use (Does Not Necessarily Apply to Free Weight Exercises):

- A. **Posture** - when using any of the **machines** in the fitness center one always wants to maintain good posture. As a general rule the lifter should always try to maintain alignment of the spine. It is important never to have the head or body leaning more in one direction than another. When in a seated position the body should always be flush against the seat with the head resting against the back of the chair.
- B. **Joint alignment on machine** - always align your joint with the axis of rotation of the machine. Machines that do not have such parts may vary from piece to piece. Ask the instructor if assistance is needed.
- C. **Positive Contractions** - these are also known as concentric movements. This is the part of a repetition where you are exerting force. We like to call it the raising of the weight. This applies to both pulling and pressing exercises. When executing the positive contraction, it is important to stop just short of locking out the joint.
- D. **Negative Contractions** - these are also known as eccentric movements. This is the lowering of the weight. Generally, one should go slower on this portion of the lift. Work at always having control of the motion of the weight. Together the positive and negative make up one complete repetition.
- E. **Full Range of Motion** - when lifting or doing a rep we always want to use a full range of motion. We must get a full stretch on each repetition while

always maintaining tension in the muscle throughout the set. This means never letting the weights rest at the bottom so that the muscles relax.

- F. **Breathing** - Exhale as you exert force during the positive movement and inhale on the negative movement. Do not hold your breath at point during the lift.
 - G. **Momentum** - keep momentum to a minimum, particularly at the beginning of the movement, to force the muscle to work on the weakest area in the range of motion.
- V. LOWER BODY DEMONSTRATION--ISOLATION LIFTS - By definition, isolation lifts are those exercises using one muscle group to achieve the lift. Depending on whether the muscle is predominantly slow twitch or fast twitch, the repetitions would range from 10-15.
- A. Quadriceps (Leg Press)
 - 1. Stress feet on end of platform and close together.
 - a. Feet should be well in front of center of gravity in order to emphasize quads.
 - 2. Stress back flat and heels down for safety.
 - 3. Spotting
 - a. Hold onto weight holder and counter any downward movement after initial upward movement.
 - b. Do not allow carriage to stop at the bottom.
 - B. Quadriceps (Leg Extensions)
 - 1. Position seat so that axis of knee is lined-up with the center of the axis of the machine.
 - 2. Stress minimal momentum.
 - 3. Concentrate on muscle doing the lift.
 - 4. Spotting should be done under heels.
 - C. Quadriceps (Leg Extensions - Hammerstrength)
 - 1. Same as above except weights are plate loaded and
may be different for each leg.
 - D. Glutes (Hip Extensions -- machine)
 - 1. Line up joints (hips) with center of cam.
 - 2. Maximize range of motion.
 - 3. Keep momentum to a minimum
 - 4. Do not spot.

- E. Glutes (Hip Extensions - floor or bench)
 - 1. Lying face down or on two hands and one knee
 - 2. Raise and extend straight leg as far back as possible with toe pointing towards floor; must raise knee above hip.
 - 3. No spotting

- F. Hamstrings (Leg Curls - seated)
 - 1. Position seat so that axis of knee is lined-up with the center of the axis of the machine.
 - 2. Bring leg brace down as tight as possible
 - 3. Push against the handles in order to keep butt back against the pad
 - 4. Dorsi-flex foot so that calf is stretched.
 - 5. Being a flexion exercise, the range of motion should be checked and monitored.
 - 6. Keep momentum to a minimum.
 - 7. No spotting.

- G. Hamstrings (Leg Curls - kneeling)
 - 1. Position pads so that knees line up with pivot point on machine.
 - 2. Kneel on pad, bring heels to butt, return to full extension.
 - 3. Weights may differ on each arm as they are Independent of one another.

- H. Erector Spinae--lower back (Straight Leg Dead Lifts)
 - 1. Test flexibility
 - a. If able to grab toes, perform the exercise from dead lift platform.
 - 2. Stress fully extended legs.
 - 3. Do not flex neck in any direction.
 - 4. One hand under, one hand over the bar for better grip
 - 5. Start light, work on flexibility; stretch at bottom.
 - 6. No spotting

- I. Erector Spinae, hamstrings (Semi-Stiff Legged Deadlift)
 - 1. Stand in front of the barbell, feet positioned hip-width apart.
 - 2. Grasp the barbell with hands just outside of your thighs.
 - 3. Keep your back arched throughout the ROM
 - 4. Knees stay bent at about 15 degrees.

J. Gastroc-Soleus--calf (Calf Raise Machine)

1. Position feet halfway on platform, place pad on top of thigh as tightly as possible.
2. Lift up heels and release safety holder to the right.
3. Lower heels until calves are stretched completely, and raise up on toes, maximizing range of motion.
4. Keep momentum to a minimum
5. No spotting

K. Gastroc-Soleus-calf (Leg Press)

1. Once legs are fully extended position feet at the bottom of the platform, foot about half-way on the platform.
2. Allow weight to drop to the point of pushing toes Back, stretching the calf area.
3. Extend toes in a plantar flexion of the ankle, Using full range of motion.
4. Keep momentum to a minimum.
5. No spotting

L. Standing Uni-lateral Calf Raise

1. Perform all reps on one foot before switching to the other foot.
2. If possible, perform these standing on the handle of a large hexagonal dumbbell (allows for a better conformity to the gastroc's strength curve). If not, use a step.
3. Lower heels until calves are stretched completely, and raise up on toes, maximizing range of motion.
4. Balance by holding on with opposite hand