Vertical leg press

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With the invention and development of the very popular hip sled over the last 10 years, many weight rooms no longer include the vertical leg press. Although simple in design, its use is excellent for the development of the hip and thigh regions. Due to the vertical nature of its operation, less weight is required when compared to a hip sled operating on a 45° angle. The vertical leg press, however, can be used for more than just lower body exercises.

Leg Press. Lying on his back the athlete positions both feet solidly on the foot board. It is important that the athlete is positioned correctly in relation to the machine. At the bottom of the motion (full hip flexion) the back should be in complete contact with the padded board beneath it. The foot position should be at least as wide as the hips, with the toes pointed slightly outward. Some athletes may prefer to use a much wider foot position. The important consideration is that the athlete is able to comfortably achieve a full range of motion (ROM) during this exercise. It is helpful to grasp the sides of the padded supporting board for stability, rather than the base of the machine. In the event of a failed attempt, the athlete can self-assist by pushing on the knees. During maximal efforts, the athlete may wish to raise his head slightly to relieve some of the pressure that may develop.

Calf Raises. Assuming the same position as for the leg press, the balls of the feet are placed toward the back of the foot board. Using a complete ROM, the foot is completely plantar-flexed and then dorsi-flexed. During this exercise, the knees are left slightly unlocked, but no leg action is used. The feet must be solidly situated on the foot board so that no slipping occurs. For variety, the toes can be pointed in or out during this exercise.
**Shoulder Press.** For this exercise, the athlete assumes an upright seated position under the machine. Both hands are placed in a slightly wider than shoulder-width grip on the foot board. The arms are then extended overhead in a military press-like fashion.

**Bench Press.** A flat exercise bench is placed under the leg press. Placing the palms of both hands on the foot board, a bench-like motion is used. With this machine, a variety of hand positions can be used. A note of caution: Although the mechanics of the vertical leg press may appear to be similar to the "Bad Rad" machine (see *NSCA Journal* 7(6):54-55, 1986), it is not recommended for plyometric type exercises. The action of the leg press is generally not as smooth and there is no way to limit the ROM of the machine itself for increased safety. A spotter must always be used for both the shoulder and bench press exercises.