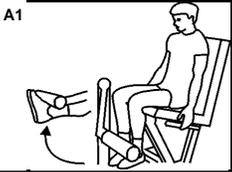


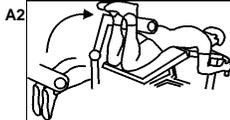
Name: Steven Smith

Program: NPI-Legs-Part 1

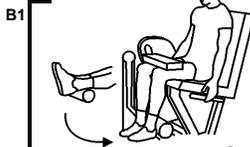
Consultant: Mike Jones-NPI-Certified Posture Specialist



**Machine-Leg Extension**  
 1. Align knee joint w/axis point on machine  
 2. Extend knee and begin to slow down & stop 10 to 30° (depending on angle of seat) before full extension  
 3. Maintain tension in quadriceps muscle group by not lowering the resistance all the way down where tension or muscle has stopped.



**Machine Prone Hamstring (flexion)**  
 1. Align knee joint w/axis point on machine  
 2. Concentric phase- contract hamstrings as you are bringing the pad toward the buttocks.  
 3. Maintain tension in hamstrings muscle group by not lowering the resistance all the way down where tension or muscle has relaxed or ceased.

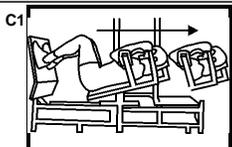


**Seated Hamstring Flexion (Curl)**  
 1. Align knee joint w/axis point on machine  
 2. Control momentum as throughout the concentric/eccentric phases.  
 3. Eccentric phase- begin to slow down as you return to the top so as not to overextend knee at top due to increased tempo  
 4. Some individuals may w/ lower back problems may have need to be reminded that the tempo should be slow and controlled.

**Note:**

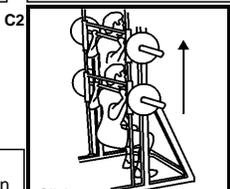


**Machine Leg Press**  
 1. Review & analyze the the design of the leg press to check for alignment and safety issues for the knee, hip, and back.  
 2. In the eccentric phase, a 90° angle should be formed at the end range of the movement.  
 3. Lower back should be maintained against pad  
 4. In the Concentric phase the knees should not be fully extended, 5 to 10° bend

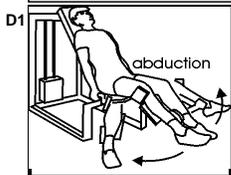


**Machine Supine Leg Press**  
 1. Review & analyze the the design of the leg press to check for alignment and safety issues for the knee, hip, and back.  
 2. In the eccentric phase, a 90° angle should be formed at the end range of the movement.  
 3. Lower back should be maintained against pad  
 4. In the Concentric phase the knees should not be fully extended at the top of the movement. There should be 10° bend.

**Remark:**



**Smith Machine Squats**  
 1. Before teaching this movement, practice Body weight Squats (see below)  
 2. Feet should be positioned ahead of body, when knee is parallel to the floor, the knee JT should form a 90° angle.  
 3. Hand position should be placed so when you turn the bar, your hand should be in a comfortable position to return the bar to its resting position.  
 4. When lowering your body, your knee should stay in line w/ your ankle & not go over it.



**Machine Seated Hip Abduction-**  
 1. Some machines have you sitting back at an angle or upright. For an angle back rest, you may want your student to sit upright to get the proper angle to isolate the muscle structure.  
 2. Focus on Abducting the resistnace w/ the glutus maximus & contract

**Note:**



**Machine Seated Hip Adduction-**  
 1. Some machines have you sitting back at an angle or upright. For an angle back rest, you may want your student to sit upright to get the proper angle to isolate the muscle structure.  
 2. Focus on Adducting the resistnace w/ the adductor (inner) muscle groups & contract

**Note:**

1. For many of the leg machines you will want to do a biomechanical analysis of the machines that our students may use. In some cases, you will find that a machine may not be designed properly for the individual that would like to use a certain machine. In these instances, its a good idea to have several options to choose from when selecting an exercise for a client.  
 2. **BODY WEIGHT SQUATS-** In teaching this movement, practice the the squatting motion using the students own body weight & have them hold on to a machine for balance until they perfected the movement & learned where to isolate specific muscle groups.