After deciding on a seat setting, document this change with the following procedure:

1. Select **Equipment Settings** located on the top left of dial screen.
2. Click on the drop-down menu and select the number for the appropriate seat position.
3. Click the **Set Equipment** button.
4. You will receive a message confirming the change. Click **Yes** and then **OK**.

You will do the same for the first two exercises (chest and leg press). The third exercise is the Core Pull and is done on seat setting 7 for most people. For a person under 5' tall, consider moving them up to setting 8. The fourth exercise, the vertical lift, is not done seated, so there is no equipment setting to document.

Chest Press

The chest press is a pushing exercise involving the use of the arm muscles, primarily the deltoid, triceps, and pectoral muscles.

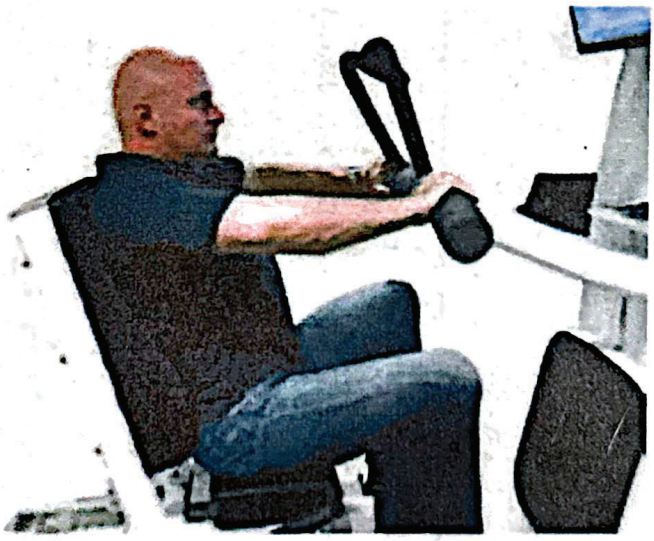

Figure 11: Proper Chest Press

Set Up

- **Bar Height:** Raise the bar to a point just below the shoulder joint. Have the member place their hands on bar and bring their

elbows up. **Hands, shoulder and elbow should form one plane, parallel to floor when viewed from the side, raise or lower bar as needed.**

- **Seat Position**: After setting the bar height, decide on the seat setting, which will determine elbow flexion (the angle at which the arms are bent). This angle should be approximately 135°. Move the seat up or back to achieve the desired elbow flexion. Once this position is determined, document the seat setting on the computer (as described above).
- **Hand Placement**: Have the member place their hands on the bar. The hands should be equal distance from the center of bar.

Trigger Event

- Remind the member to keep their back against the seat throughout the entire exercise and *not to hold their breath.*
- Instruct the member to push with their arms in an outward motion, driving the seat back.
- Encourage the member to push to their failure point and hold the exercise until the screen turns red, indicating time has expired.
- Once the exercise was properly completed and the results recorded, click **Next Trigger Event.**

Leg Press

The leg press is a pushing exercise involving the use of leg muscles, primarily the calves, quadriceps, and gluteus complex.

Figure 12: Proper Leg Press

Figure 13: Proper Core Pull

Set Up

- **Seat Position**: The universal setting is seat position 7. However, for members less than 5 feet tall, seat position 8 is preferred. Once this position is determined, document the seat setting on the computer (as described above).
- **Seat Belt**: Have the member put on the seat belt. It should fit tightly at the hip.
- **Form**: Member should let their feet hang freely, and place their hands on the thin upper bar with their palms facing toward them, and brace their forearms against the larger bar. Coach the member not to press back with their calves into the foot rest (as in a hamstring curl). The correct movement is to attempt to bring their knees up, toward their elbows, while simultaneously driving the elbows down toward their knees.

Trigger Event

- Remind the member to lean their body forward and *not to hold their breath.*
- Instruct the member to bring their knees and elbows toward each other. This will be very similar to a crunch motion. Remind the member they are bringing knees toward chest all in ONE motion.
- Encourage the member to pull to their failure point and hold the exercise until the screen turns red.
- Once the exercise was properly completed and the results recorded, click **Next Trigger Event.**

Vertical Lift

The Vertical Lift is a pulling exercise primarily involving the use of the trapezius, spinal erectors, forearms, and hamstrings.

Figure 14: Proper Vertical Lift

Set Up

- **Bar Height**: Have the member walk up to the bar with their feet approximately shoulder-width apart and thighs touching the bar. Have them look straight ahead at the monitor. Raise or lower the bar until it just reaches the first joint of their middle finger (can just begin to wrap their finger around the bar).
- **Hand and Foot Placement**: With their thighs still in contact with the bar, have the member drop straight down and grab the bar with both hands while keeping their arms straight. The arches of the feet should be directly underneath the bar.
- **Form**: Have the member pinch their shoulder blades (scapulas) together and maintain their lower back curve (lordosis). Make sure the member's arms are completely straight. Instruct the member to use their back and leg muscles to lift straight up on the bar.

Trigger Event

- Instruct the member to lift with their back and legs, not with their arms.

Figure 15: Improper Chest Press: Dropping the elbows

Why this is bad: It disengages the pectorals.
How to fix this problem: Stand behind the member and hold their elbows up.

Trigger Event: Chest Press
Mistake: Contracting (hiking) the shoulder muscles.
What this looks like:

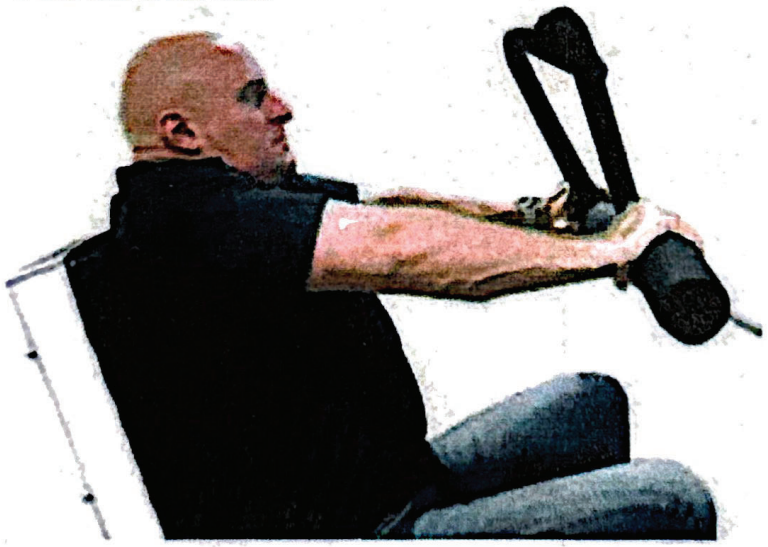

Figure 16: Improper Chest Press - Hiking the shoulders

Why this is bad: The member is using the incorrect set of muscles; strong discomfort can result.

How to fix this problem: Verbally guide the member not to tighten up their shoulders. Stand behind the member and help them relax those muscles by placing hands on the member's shoulders.

Trigger Event: Chest Press
Mistake: Grabbing too low on the bar.
What this looks like:

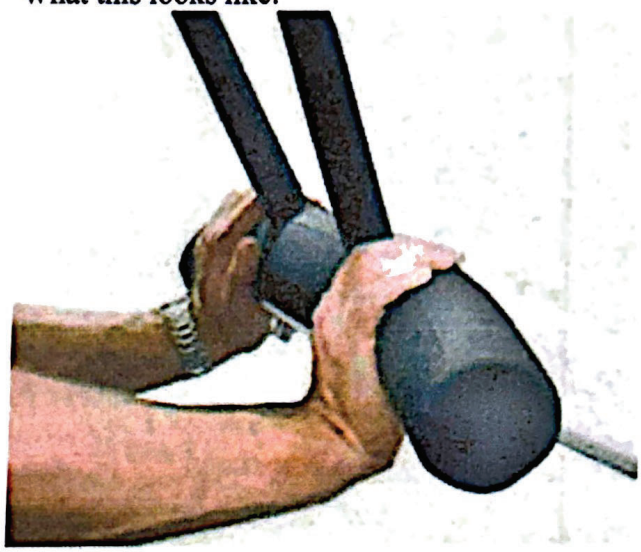

Figure 17: Improper Chest Press - Bad hand position

Why this is bad: This bends the wrists back as the member is pushing. They may experience pain in this position.
How to fix this problem: Have the member move their hands further up on the bar.

Trigger Event: Chest Press
Mistake: Leaning forward during the exercise
What this looks like:

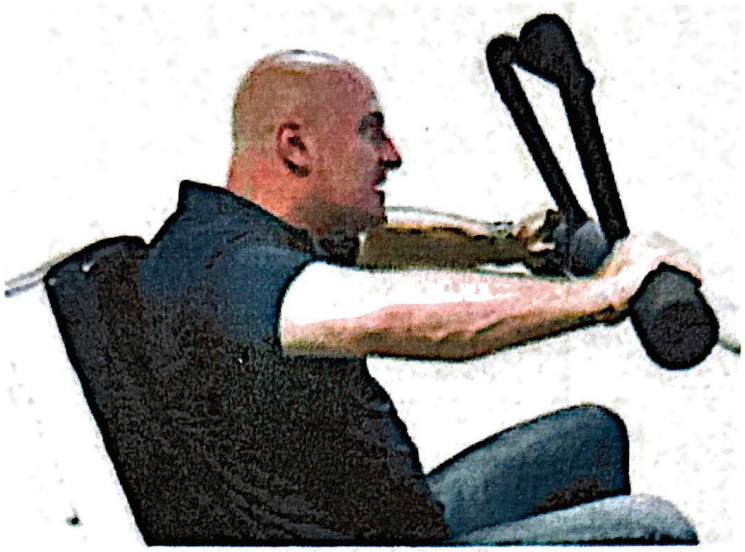

Figure 18: Improper Chest Press - Leaning forward

Why this is bad: The load will not be captured correctly, as it is the seat which captures the load. This may also result in lower back pain.
How to fix this problem: Gently push the member against the seat.

Trigger Event: Leg Press
Mistake: Knees dive in toward each other (valgus position).
What this looks like:

Figure 19: Improper Leg Press - Knees dive inward #1

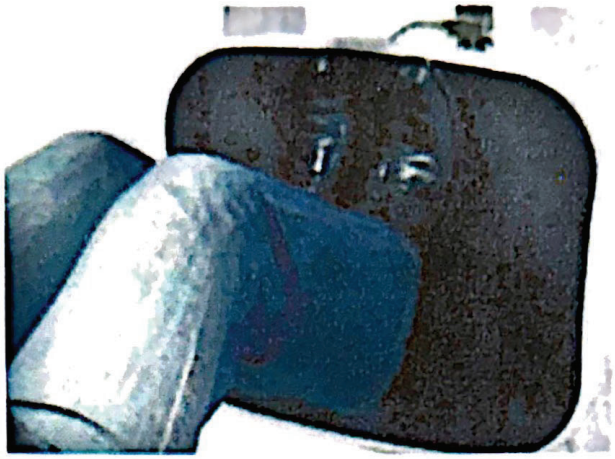

Figure 20: Improper Leg Press - Knees dive inward #2

Why this is bad: This is particularly dangerous for ligaments! If a members begins to do this, stop them immediately!
How to fix this problem: You can place a volleyball or 6" foam roller between their knees, or, have the member put their feet completely together on the foot pad before they begin the leg press. This is the way they will have to do it from this session on to prevent future knee dives.

Trigger Event: Leg Press
Mistake: Raising the heels during exercise.
What this looks like:

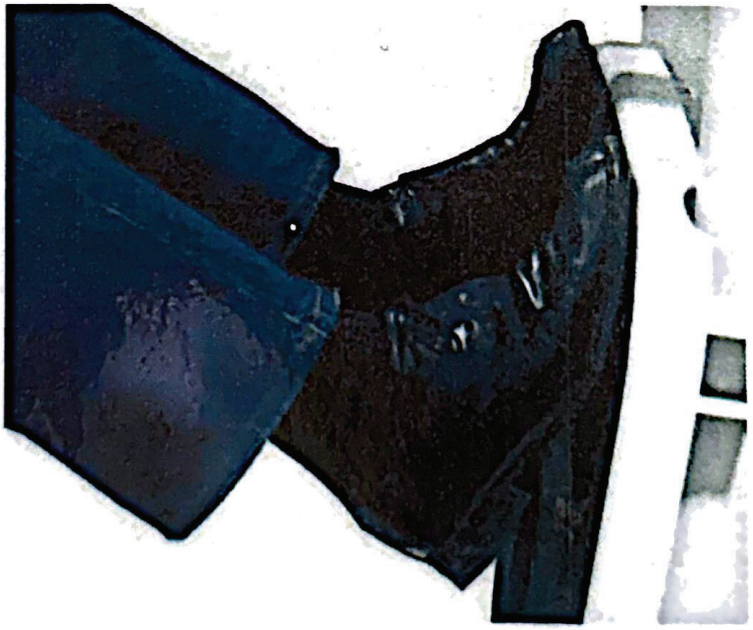

Figure 21: Improper Leg Press - Raising Heels

Why this is bad: This engages the calves and reduces gluteal recruitment.
How to fix this problem: Instruct the member to push more through their heels. You might also move their feet up higher on the pad. Another solution is to have the member do the exercise barefoot.

Trigger Event: Leg Press
Mistake: Using uneven pressure (member presses harder with one leg)
What this looks like:

Figure 22: Improper Leg Press - Uneven pressure

Note: When a member does this, it may be very subtle or very noticeable. Watch for the knees to move down evenly. If the member is pushing harder with one leg, that leg will extend further out than the other leg.
Why this is bad: This can result in pain for the hip joints.

How to fix this problem: Verbally guide the member to press harder with the leg which is pressing less. If the problem continues, this could indicate a leg length discrepancy, a muscle imbalance, or other orthopedic issue. Have the member check with a medical professional.

Trigger Event: Core Pull
Mistake: Arching the back during the exercise, or doing a chin-up.
What this looks like:

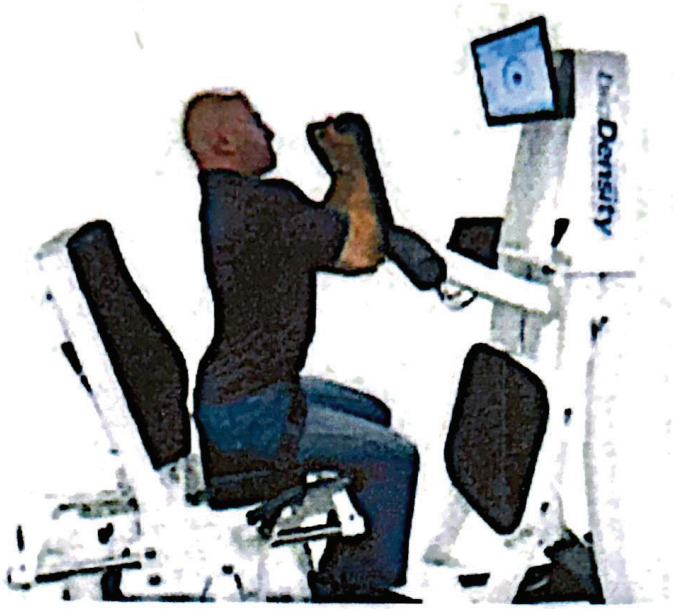

Figure 23: Improper core pull - Arching the back/chin-up

Why this is bad: Instead of contracting the abdominal muscles, this stretches them. Most members do not realize they are doing this. This may result in back discomfort and/or low scores.

How to fix this problem: Help the member curl their back forward by demonstrating the proper form. Verbally instruct the member as they are doing the exercise.

Trigger Event: Core Pull
Mistake: Pulling down only

Trigger Event: Vertical Lift

Mistake: Leaning forward (instead of raising the chest/rib cage to the ceiling, as they should, the member may lean forward as they come up). What this looks like:

Figure 25: Improper Vertical Lift - Leaning forward

Why this is bad: This stretches the trapezius, instead of contracting it.

How to fix this problem: Have the member scoot their feet further forward and focus on "pinching their shoulder blades" together. This may feel very unusual; however, they must do this in order to force the center of gravity behind them. If the problem persists, you may stand behind the member and hold their back. As the member begins the exercise, pull them back to guide them.

Trigger Event: Vertical Lift
Mistake: Using uneven pressure (the member may pull more with one side than the other).

What this looks like: It will look like the member is pinching back only one shoulder blade while the other one is actually coming forward.

Why this is bad: The client may experience discomfort in that area, due to the trapezius being heavily loaded with pressure on one side, while the other half is being stretched.

How to fix this problem: Come up behind the member and actually position their shoulder blades for them. You should also encourage the member to pinch their shoulder blades together as they do the exercise. This will help guide them.

Trigger Event: Vertical Lift

Mistake: Losing form during the exercise.

What this looks like: The member will have the form correctly set before they begin the exercise, but as they continue they will lose their form. The member may curl their back forward instead of arching it. It will seem like they are shifting their pelvis backward.

Why this is bad: This will be uncomfortable and dramatically reduce the load they are lifting.

How to fix this problem: As soon as this problem is noticed, instruct the member to stop the exercise immediately. Inform the member of their mistake and have them slowly engage back into the exercise.

Determining Failure Point

It is crucial that every members gets to momentary muscular failure on each exercise, every time!

Unfortunately, not all members do this, and it is up to YOU to determine that momentary muscular failure has occurred.
There are two things to look for:

1. **Effort Given:** The member will noticeably give the maximum output possible.
2. **Positive Load Regression:** The member will push or pull to a maximum point at which the needle on the dial will immediately begin to drop regardless of the effort still being given by the client.