

## Integrated Cardiopulmonary Pharmacology (3rd Edition)

This is an excerpt from Client-Centered Exercise Prescription 3rd Edition With Web Resource by John C. Griffin.

### Client-Centered Exercise Demonstration

First impressions about the prescription form in the demonstration stage and continue to be reinforced through subsequent workouts and all the stages of monitoring. There is a relative paucity of articles concerning the teaching and demonstration of new exercise skills, despite the fact that this often constitutes a vast majority of the time of a personal fitness trainer. Teaching behaviors such as exercise explanations, demonstrations, positive reinforcement, and performance feedback increase the level of exercise focus.

Clients need to understand how an exercise will help them. They need to see it demonstrated and then try it with some expert feedback. Finally, the exercise may need to be modified or integrated into a full prescription. These are the steps involved in form 5.8, Exercise Demonstration Model Checklist. Adapt this model to suit your client and situation.

The one-on-one exercise demonstration is a core element of your client-centered services. The exercise demonstration model (presented in the highlight box here, and as a checklist in form 5.8) identifies more than two dozen critical behaviors that make up a single demonstration. The items on the checklist guide you through this process. For many of the items, the checklist provides examples of behaviors or methods of showing that item. They are merely suggestions that may guide your actions or dialogue with your client.

There are four distinct steps.

The predemonstration sets the scene, in which you ensure that the client is comfortable, find out about the client's previous experience, and provide an idea of what is to come and why. The actual demonstration stage teaches the client how to perform the exercise correctly and safely. Effective use of verbal and physical techniques adds clarity to the teaching. The third stage is the client trial, in which you observe carefully and provide specific feedback. The follow-up allows you to gather feedback from the client and provide client-centered prescription guidelines.

Demonstrating an exercise is both a science and an art. It requires a balance between your technical knowledge and your people skills. With practice, you will learn to alter the technical aspects to suit each client's personality and learning style.

You should always observe, analyze, and modify technique. You must have a sound knowledge of the biomechanics of the exercises and an ability to design multiple variations in technique to suit the abilities of your clients. In addition to designing appropriate exercises, you must reinforce good technique both by demonstrating new exercises and by observing your client as she attempts to duplicate your demonstrations.

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These are key technical issues on which you must focus to provide effective exercise demonstration:

• Initial body position. Focus on overall body posture. Instruct your client to "set" herself into a good body position before any exercise. Focus on exactly where you want your client to begin. For example, when beginning a bench press, your client should press her low back into the bench, with feet on the bench (if possible) and hands slightly wider than shoulder-width apart. Establish what will be stabilized and how that will feel (e.g., shoulder girdle or pelvic stabilization).

• Movement pattern. From the starting position, describe the sequence of movements and the body or joint position at the end of the exercise.

• Cueing. Give alignment and "feeling" cues to assist in the execution phase of the exercise. For example, when your client is doing side-lying lateral leg raises, show how the hips are aligned one on top of the other, raising to approximately 45°, with knees facing forward.

• Safety and quality. Using your knowledge of the demands and biomechanics of the exercise, provide appropriate safety guidelines. Focus on quality versus quantity. This refers to the number of repetitions your client performs correctly and the speed at which they occur. When resistance equipment is being used, remember the issues we raised in "Direction of Force Application and Muscle Alignment" in chapter 3:

< Is the path of motion defined by the machine the same as your client's path of motion?

< Is the direction of force application safe and optimal?

< Does the equipment allow proper alignment between the machine's fulcrum and the center of the moving joint?

• Spotting. Spotting is an important component of exercise demonstration. Spotting refers to the visual and physical aspects of monitoring clients as they execute exercises. Visual spotting is done for all exercises, whereas physical spotting is used primarily in weight training. Watch for correct body alignment, signs and symptoms of fatigue, signs of discomfort, control of movements, and the direction of the exercise energy. Assist the client to make technique

corrections, attempt more repetitions, or complete the range of motion. For clients who are more advanced, verbal reinforcement cues are effective to correct their technique. Once the neural pattern (motor schema) has been cemented, the cues can prompt fluid modification during the repetition (Baker 2001). The simple use of one or two key words such as head up, pelvis stable, or pinch provides sufficient feedback based on the client's current knowledge of performance. Spotting the client provides an excellent opportunity to monitor good form. For more detail on spotting, see chapter 7.

• Positioning. While you are training or demonstrating to your client, your positioning can help you and affect your rapport with your client. Position yourself for the best view of the client's technique if you are not spotting. From the side or a 45° angle, you should also be able to view her face and most of her body. Match your client's upper body level, and avoid talking down to her. Like an athlete, be in a ready position to assist your client. Being casual by leaning or sitting can make you appear unprofessional.

• Touching or not touching. Many personal fitness trainers touch their clients to adjust their position. We must always respect individual boundaries. If you have not received permission to touch your client or are hesitant to ask, you can use a few strategies to help position your client without touching her. Demonstrate the exercise and then point out the adjustments on your own body while the client performs the exercise. Another technique is to provide a mental image such as "squeezing the abdomen like an accordion" (Cantwell 1998).

The skills involved in demonstration are significantly based in the psychosocial domain. Table 5.11 outlines some of these psychosocial aspects involved in the stages and activities, from the time we meet our clients for the program demonstration until later in the program follow-up.

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It is important within the exercise demonstration to adjust your approach to suit each client's learning and personality style. In the beginning stages, focus on giving only the important points. As your client becomes more experienced, offer more alternative exercises, allowing your client to make his own selection. Base the amount of information you share with your client on his current stage of learning as well as on his preferred learning style. These are different learning styles and personalities, each followed by an example of how you would use that learning style with a client:

• Learning by doing: Have the client perform a series of abdominal exercises at a very slow and controlled pace, rather than the faster pace to which she is accustomed.

• Learning by observation: Demonstrate for your client the difference between a slow and faster pace for the exercise, then have her try it. Ask your client to comment on specific items she observed or felt - for example, "Did I look in full control of my body during the fast pace?" or "How did the slow exercises feel? Was there more energy required to perform the series slow or fast?"

• Learning by knowing the theory: This is a combination of your client's experience and observations; ask, for example, "What does this mean about the next time you will do sit-ups?"

• Learning by applying the information to individual situations: Have your client consider how this information will apply to other exercises he executes. "What would be the best way to perform muscle endurance exercises? Where else can this information apply?"

Teaching strategies can also be based on clients' personality characteristics. During the initial part of your meeting, try to determine their predominant personality style. Here are three different personality styles, each followed by an example of how you would adapt the demonstration for that client:

• Technical personality: Explain the pros and cons of your exercise choice or design. Deliver information at a moderate pace and be specific about your feedback.

• Sociable personality: Maintain a relaxed pace, inviting feedback and regularly checking on comfort. Be a good listener.

• Assertive personality: Be businesslike, reasonably fast paced (once their execution is successful), and stimulating. You may need to limit the options you present, but be sure to incorporate clients' input.

#### Exercise Demonstration Model

##### 1. Predemonstration

- â• Set climate by making client feel comfortable and being receptive and responsive.
- â• Provide overview by explaining the purpose of this session and what is to happen in this session.
- â• Determine client's background and experience by asking, "Have you done this exercise before?" "Have you used this type of equipment before?" "What was your experience?"
- â• Clarify purpose of exercises by explaining the specific muscles used (major prime movers) and relevance to stated needs and wants.
- â• Encourage the client to ask questions and provide input.

## 2. Demonstration

- â• Provide precise and appropriate verbal instructions.
- â• Position client appropriately to watch demo.
- â• Provide clear physical demonstration (4-6 reps before client trial).
- â• Ensure that overall technical execution was smooth and confident.
- â• Ensure beginning position alignment and proper grip.
- â• Isolate the movement (i.e., no compensation or inappropriate movements).
- â• Stabilize the pelvis and key joints.
- â• Ensure that terminal points of range of motion are appropriate.
- â• Demonstrate safety, including controlled breathing and no Valsalva maneuver.

â• Demonstrate safety, including controlled speed and no momentum at the end of the range of motion.

â• Ensure efficient use of time with descriptions and explanations.

### 3. Client Trials

â• Set client up by positioning and alignment.

â• Select appropriate weight (moderately difficult).

â• Ensure trial safety by controlling breathing, momentum, and plane of movement and ensuring no joint locking.

â• Ensure effective spotting by being in position to observe and assist with starting and finishing positions.

â• Have client execute a full set.

â• Provide feedback to the client, which may include providing specific information and monitoring, focusing on behavior and not the person, correcting one aspect at a time, and being positive and helpful (providing success).

â• Demonstrate verbal skills such as cueing during execution, paraphrasing, summarizing, and questioning.

â• Demonstrate nonverbal skills such as using correct body position, being engaged, providing eye contact, and ignoring distractions.

### 4. Follow-Up

â• Obtain feedback from client by asking how it felt (i.e., awkward, comfortable, difficult) and encouraging the client to ask questions and provide input.

â• Demonstrate active listening skills by responding to feedback.

• Provide prescription guidelines (including weight, reps, and sets, or frequency, intensity, time, and type) that integrate and interpret information from client trial.

• Suggest a method of progression or encourage self-monitoring and assessment.

• Provide a modification on request (problem solving).

#### Teaching Cues and Common Problems During Exercise Demonstrations

Spotting and positioning are technical elements but relate directly to client execution. Poor spotting or positioning could result in serious injury to the client or trainer; good spotting provides a trust-building experience that rivals any counseling technique. Cueing is a prompt or a signal that acts as a reminder to do something. As trainers we are teachers, reminding (cueing) our clients of the correct position, area of stabilization, or movement; but we also have a physical presence through our own positioning and spotting.

The following are three common resistance exercises, one lower body, one upper body, and one for the trunk. Common execution problems and appropriate cueing are presented.

#### Lower Body Example: Leg Press or Hack Squat

A common fault is bringing the weight too low. When the knee tracks beyond the toes, excessive forces are placed on the posterior cruciate ligament. A tactile range-limiting cue such as a palm of the hand on the knee may be effective. Some clients may turn their feet inward or outward to try to isolate parts of the quads. Assure your clients that there is no consensus that foot position can alter quad muscle recruitment. Encourage them to find the most comfortable foot position that poses the least stress. In many lower body resistance exercises, you should assist the client at the end of the movement or if the speed decreases because of fatigue.

#### Upper Body Example: Barbell Curl

A common fault is moving the torso or shoulder joint during the execution. Extending the torso in the up phase creates momentum. To deter this habit, you may have your client perform the exercise with the upper back against a wall.

Flexing the shoulder joint draws assistance from the anterior deltoid and upper pectoralis major. Placing a finger on the posterior elbows of your client will be a sufficient tactile cue not to lift the arms forward. The faults described are actions that do not allow the elbows to move through a full range of motion and decrease the muscle fiber recruitment of the biceps. In many upper body resistance exercises, you should position yourself close to the client where you have the most effective position for assistance. For dumbbell exercises, position your hands at the joint that is immediately below the weight.

#### Trunk Example: Exercise Ball Crunch

A common fault is using a position on the ball that does not allow for a range of motion suited to the client strength. A position of support in the middle and upper back will decrease the range of motion and reduce the lever arm length, creating an easier modification. A lower starting position allowing the spine to slightly hyperextend prestretches the abdominal muscles, changes the fulcrum, and increases the lever arm, therefore increasing the contractile range of motion. Initially you may need to stabilize the ball against a wall with your feet or with available equipment. Monitor the position of your client, observing the fulcrum of the movement, the range of motion, and perceived difficulty of the client. With many trunk exercises, you must teach pelvic stabilization to minimize low back curvature and strain. Have clients touch their abdominal area to cue this pelvic stabilization and monitor their breathing.

#### Reinforcing the Client in the Demonstration

The client trial and follow-up stages are an excellent opportunity for motivation and reinforcement. Baker (2001) described three methods of reinforcing behavior.

Achievement reinforcement helps cultivate motivation to achieve preset goals. Recognize even a small improvement, but make sure it is praiseworthy because clients will know if you are sincere. Sensation motivation comes from the feeling of execution excellence and, if reinforced immediately, will remain clear in the kinesthetic memory. Verbal reinforcement should be positive and specific to the performance. To correct a client error, avoid negative phrases such as "No . . . that's not right," "That's too fast," or "Don't lock your elbows." Instead try more positive corrective cues such as "If you adjust that position, you should feel the difference," "Keep that cadence of 1 up and 3 down," or "Keep your elbows soft . . . good."



Reinforcing the client during the trial and follow-up stage is an effective means of motivating him to continue with positive behaviors or to modify incorrect techniques. Westcott and colleagues (2003) found that high levels of focused trainer - client interaction should address major aspects of proper exercise performance without being too technical during the first few weeks of training. They further suggested that comments should not disrupt exercise flow and should be exercise focused, reinforcing the client's training efforts.

#### h4>Connecting With Your Client

Try to get a broad picture of the human side of program demonstration. Imagine that you are demonstrating a modified squat to a novice middle-aged client. In the following, a description of your role in each stage precedes a brief sample statement appropriate for that stage of the exercise demonstration.

#### Predemonstration

This first step requires a sales technique. You need to sell the benefits and show your client how the exercise is relevant to him.

By doing the squats regularly, you will be better able to climb longer flights of stairs, lift heavier objects from the floor, and walk farther without fatigue.

#### Demonstration

You are the role model, yet you must be sensitive to your client's style of learning - tactile, auditory, or visual.

Stand with feet shoulder-width apart, knees slightly bent; your back is pushed flat against the wall with your arms on your thighs for support, like this.

#### Client Trials

Your focus is on your client's behavior. Leave him with a feeling of success and an idea of how to do better.

As you bent your knees to lower your body, your knees moved beyond the line of your toes initially, but then you pressed your hips farther back as you lowered your body and realigned . . . that's good.

Follow-Up

Ask for your client's feelings. If you have rapport with him, you will gain valuable insights. Knowing that you are there for him gives him the confidence for greater autonomy.

Are there any aspects of the exercise you are unsure of or want to clarify? Which part of the program are you most looking forward to?

Learn more about Client-Centered Exercise Prescription, Third Edition With Web Resource.

## Reference

[How to Read EKG/ECG Strips: A Step-By-Step Guide for Students to Quickly Interpret the 12-Lead ECG|Learn How to Detect Early Signs of Heart Attack, Arrhythmias, Heart failure and Other Anomalies](#)

[Pharmacology - An Illustrated Review \(Thieme Illustrated Reviews\)](#)