Reference Guide for Group Education

Session 3
Energy Conservation

➤ Fatigue in COPD
➤ Daily Activities that Cause Fatigue
➤ Energy Conservation Principles
Education Plan and Methods

Session Length: 1 h 30 m

• Introduction

• Working Phase

  1. The link between COPD, fatigue and lack of energy. Interactive lecturing.
  2. Daily activities that cause fatigue and shortness of breath. Group discussion.
  3. The six principles of energy conservation.
     3.1 Introduction to the energy conservation principles: Goal and benefits. Interactive lecturing.
     3.2 Principle 1: Prioritize your activities. Group discussion.
     3.3 Principle 2: Face yourself. Group discussion.
     3.6 Principle 5: Pursed-lip breathing. Demonstration and practice.
  4. Assessment of participants’ level of self-efficacy. Group discussion.

• Closing of the session

Human Resources

  1. One healthcare professional (one occupational therapist, if possible)
Living Well with COPD™ Resources

1. Modules:
   • “Managing your breathing and saving your energy”, p. 25-29
   • “Managing your stress and anxiety”, p. 7-8

2. Posters:
   • Anxiety-Breathlessness Cycle
   • Energy Conservation Principles
   • Pursed-Lip Breathing Technique

Additional Resources

1. Board/Flipchart

Environment

1. Use a quiet and comfortable room for 10 to 15 people. Ensure proper ventilation.
2. Place the chairs in a semi-circle around the board.
Introduction

• Presentation of the facilitator
• Identification of the expectations and interests of the group
• Review of the importance of using the pursed-lip breathing technique with daily life activities. Make links with the present session.
• Establishment of common goals for the session

Working Phase – Educational Interventions

1. The link between COPD, fatigue and lack of energy

1.1 UNDERSTANDING THE LINK BETWEEN COPD, FATIGUE AND LACK OF ENERGY

Present this section in an interactive way

To support your teaching, use the poster of the “Anxiety-Breathlessness Cycle”.

Present the anxiety-breathlessness cycle in COPD. Emphasize the role of fatigue in this vicious cycle.

Suggested script for the facilitator:

• The main symptom of COPD is shortness of breath.
• Shortness of breath can cause anxiety and even panic attacks.
• Anxiety makes you breathe faster, which increases your shortness of breath and as a result, you become more anxious.
• Many COPD sufferers choose to stop doing activities because of their fear of dying from breathlessness.
• The less you do, the less you are in shape. You will experience more fatigue, shortness of breath and anxiety.
• This is the anxiety-breathlessness cycle.
2. Daily activities that cause fatigue and shortness of breath

2.1 IDENTIFICATION OF DAILY ACTIVITIES THAT CAUSE FATIGUE AND SHORTNESS OF BREATH

Present this section using group discussion

Identify with the participants the activities in their daily life that cause fatigue and shortness of breath. Ask each of the participants to identify one activity and write the answers on the board.

Suggested question:

• Which are the activities in your daily life that cause you fatigue and more shortness of breath?

3. The six principles of energy conservation

3.1 INTRODUCTION TO THE ENERGY CONSERVATION PRINCIPLES: GOAL AND BENEFITS

Present this section in an interactive way

Use the poster of the “Energy Conservation Principles” to support your teaching.

Explain to participants the importance of the application of the energy conservation principles in their daily life.

Suggested script for the facilitator:

Staying active and keeping up your routine is important when you have COPD. Learning how to manage your breathing when performing your day-to-day activities will help you save energy and prevent fatigue. There are 6 principles of energy conservation and we will review each of them together.

Goal:

• To better perform the daily activities that cause fatigue and shortness of breath.

Benefits:

1. Minimize fatigue and shortness of breath.
2. Better perform daily activities according to your level of energy.
3.2 PRINCIPLE 1: PRIORITIZE YOUR ACTIVITIES

Present this section using group discussion

Discuss with the participants the application of this principle to their daily life. Ask questions of each of the participants and write the answers on the board.

Suggested script for the facilitator:

Prioritize your activities

- Evaluate what you must do and what you would like to do.
- Eliminate activities that are not necessary.
- Do not forget to include activities that help you relax and recharge.

Possible discussion questions:

- Which activities do you consider necessary?
- Which activities do you prefer?
- Which activities would you do if you had more energy?
- Which activities help you relax and recharge?
- Which activities could you eliminate?
- Which activities could you get someone else to do for you?

Note to the facilitator:

- Talk about the importance of leisure activities. This is an area that patients frequently disregard when setting priorities.
3.3 PRINCIPLE 2: PACE YOURSELF

*Present this section using group discussion*

Discuss with the participants the application of this principle to their daily life. Ask questions of each of the participants and write the answers on the board.

**Possible discussion questions:**
- What was your customary pace prior to developing COPD – quick, steady or slow?
- Is it hard for you to slow down?
- What strategies might help you slow down?

**Suggested script for the facilitator:**

*Pace yourself*
- Understand your limits and respect them.
- Slow down your pace: a slower and regular pace uses up less energy.
- Avoid rushing, even if you are the type of person who finds it hard to slow down.
- Alternate heavy and light tasks, e.g. don’t go grocery shopping the same day you’re vacuuming.
- Don’t try to do everything at once.
- Break down difficult tasks into smaller steps.
- Include breaks in your schedule.
- Maintain good sleeping habits.

**Learning contract:**

Ask participants to observe their level of fatigue and shortness of breath while performing an activity (e.g. getting dressed, cleaning, making the bed). Encourage them to recognize the **signs** of fatigue early on and to **cease the activity before** they are short of breath, and not **because** of shortness of breath.
Discuss with the participants the application of this principle to their daily life and make the link with the principles of prioritizing and pacing. Ask questions of each of the participants and write the answers on the board.

Suggested script for the facilitator:
Plan your schedule
- Stay active within your limits.
- Plan a realistic schedule for the day, week or month.
- Get a sense of the times of the day during which you have the least and the most energy.
- Schedule the activities that require more energy (e.g. grocery shopping, medical appointments, vacuuming), at the time of day you have the most energy.

Possible discussion questions:
- At which time of day do you have the most energy?
- At which time of day do you have the least energy?

Learning contract:
Hand out Attachment 1 – “Week Schedule”, and ask the participants to complete it at home.

Suggested script for the facilitator:
This is one example of a schedule. Try to balance your activities within the week, taking into account the level of energy required for each one (especially heavy tasks). Don’t forget to plan for leisure activities.
3.5 PRINCIPLE 4: POSTURE

3.5.1 Demonstration and practice

3.5.2 Present this section using group discussion

3.5.1 Practice with the participants the body positions and types of movement that help save energy.

Possible discussion questions:
• What kinds of movements cause you shortness of breath or fatigue?

Suggested script for the facilitator:
Posture:
• Be aware of your posture when performing an activity.
• Be aware of the movements (e.g. bending or reaching) that cause you shortness of breath or fatigue and avoid them if possible.
• Try to work with your elbows and/or forearms supported.
• Work at a height that allows you to keep good posture.
• Try to perform most of your activities while sitting (you use less energy sitting down than standing up).
• Avoid carrying heavy objects. Pushing, pulling or sliding objects is less demanding.
• When you must carry something heavy, hold it as close to your body as possible.

Hand out Attachment 2 – “Using Posture to Save Energy”. Demonstrate the techniques as they are described in the attachment, presenting one example for each type of movement. Ask the participants to imitate the movements. Provide constructive feedback and reinforcement.
3.5.2 Discuss with the participants the organization of their home environment. Ask questions of each of the participants and write the answers on the board.

Suggested script for the facilitator:

**Organize your environment**

- See how you can organize the storage spaces in your home to reduce the need for reaching and bending.
- Keep duplicates of the things you use most often, e.g. if you live in a two-storey house, keep a set of cleaning supplies upstairs as well as downstairs.
- Ensure storage areas are set at a comfortable height – between your waist and shoulders – especially for heavy objects or those most often used.

**Possible discussion questions:**

- Do you have stairs at home? How can you organize your space to avoid trips up and down the stairs?
- Is there a room in your home where you like to spend time (i.e. kitchen, basement workshop, sewing room, etc.)?
- Can you organize your storage space to reduce the need for reaching and bending?

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**3.6 PRINCIPLE 5: PURSED-LIP BREATHING**

*Demonstration and practice*

Use the poster of the “Pursed-Lip Breathing Technique” to support your teaching.

Demonstrate to participants how to coordinate their breathing with movements that require effort.

Suggested script for the facilitator:

**Pursed-lip breathing to reduce shortness of breath**

- Use pursed-lip breathing when doing physical activities.
- Exhale when an effort is required (e.g. when opening a heavy door: inhale, then exhale as you pull the door open).

Demonstrate these techniques with examples related to daily life activities: picking up objects from the floor, opening a heavy door, hanging clothes, putting on shoes, etc. Ask the participants to imitate the examples. Provide constructive feedback and reinforcement.
3.7 PRINCIPLE 6: POSITIVE ATTITUDE

*Present this section using group discussion*

Discuss with the participants the application of this principle to their daily life. Ask questions of each of the participants and write the answers on the board.

**Suggested script for the facilitator:**

**Positive attitude:**
- Be patient and tolerant with yourself and your family and friends.
- Keep your sense of humour.
- See yourself as someone who makes the most of what they have, rather than as a victim of your disease.

**Possible discussion questions:**
- How are you coping with your illness?
- Do you find it hard to maintain a positive attitude?
- Do you have a tendency to get frustrated, depressed or irritated with others?

4. Assessment of participants’ level of self-efficacy

4.1 ASSESSMENT OF PARTICIPANTS’ LEVEL OF SELF-EFFICACY IN SAVING THEIR ENERGY

*Present this section using group discussion*

Evaluate participants’ level of self-efficacy in saving their energy by using energy conservation principles in their lives.

**Suggested questions:**
- Do you feel capable of using energy conservation principles in your daily life?
- Do you think that using the energy conservation principles can help you accomplish your daily life activities?
If participants feel capable of saving their energy, ask them to continue applying the strategies taught in this session.

Discuss with the participants the possibility of asking for help if they are unable to perform their daily life activities despite using the energy conservation principles (involve each of the participants in the discussion).

Present the support resources available in the community. Use Attachment 3 – “Community Resources”.

If some participants still do not feel capable of saving their energy, make sure to refer these participants to their resource person, who can see them on an individual basis, find the source of the problem, and reinforce the use of the strategies taught in this session.

Closing the session

• Answer the questions of the participants.
• Summarize the points to be retained and ask the participants to repeat them.
• **Learning contract:** Ask the participants to review and practice the energy conservation principles every day. As well, encourage them to:
  – Complete the “Week Schedule” (Attachment 1).
  – Recognize the early signs of fatigue and cease an activity before shortness of breath worsens.
• Evaluate the satisfaction of the participants with regards to the present session. Ask the group about the level of general satisfaction; use an evaluation questionnaire that can measure the level of response to the group expectations in terms of: development, length, content, methods, facilitator and environment.
## Attachment 1: Week Schedule

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This is one example of a schedule. Try to balance your activities within the week, taking into account the level of energy required for each one (especially heavy tasks). Don’t forget to plan for leisure activities.
Attachment 2: Using Posture to Save Energy

POSTURE

• When you remain in one position for extended periods of time, blood flow is reduced and pressure on the joints is increased.

• There is no “correct” posture to keep for an entire day. The human body needs change and mobility.

• In general, work should be done at elbow height, whether you are sitting or standing. However, heavier work should be done lower, and light precision work, higher. Keep elbows in at your side.

STANDING

• Proper alignment reduces energy expenditure. When your spine is in alignment, a plumb-line should pass through the ear, shoulder joint, hip joint, behind the knee and through the arch of your foot.

• Maintain a wide, stable base while standing and lifting.

• When standing for extended periods of time, place one foot on a bench or low shelf to relax your back.

SITTING

• If you are tired from standing, try sitting down to work. You consume 25% less energy when sitting than when standing.

• If short of breath, lean forward and support your forearms.

• Many grooming and kitchen tasks can be done while sitting with arms supported.

• Avoid sitting on deep or low chairs that are difficult to get out of.

• If you find it difficult to perform certain tasks while sitting, try leaning against a high stool. This eliminates the exertion of standing as well as the effort of getting in and out of a chair.

REACHING

• Remember to exhale on exertion: Inhale, then exhale as you reach.

• When tired or short of breath, avoid unsupported arm movements, i.e. reaching up, washing hair.

• Many long-handled technical aids exist to help you avoid reaching and bending (i.e. long-handled reacher, sponge, shoehorn, duster, dustpan, etc.)

BENDING

• Bend your knees and keep your back in alignment.

• Stabilize yourself by holding on to a chair seat or counter.

• As an alternative to bending, try kneeling (use a kneeling pad) or sitting on a secretary chair (on wheels) when performing work at a lower level.

• Remember to exhale on exertion: Inhale, then exhale as you bend.
ENERGY CONSERVATION
ATTACHMENTS

LIFTING
• If possible, avoid lifting. Sliding, pushing, and pulling all consume less energy.
• If you must lift something, keep stomach muscles firm and maintain a wide base of support.
• Keep items close to the body when lifting or carrying.
• Use your legs for lifting, not your back.
• If you need to turn while lifting, pivot your feet – don’t twist your back.
• Remember to exhale on exertion: Inhale, then exhale as you lift.

CARRYING
• Balance the weight. Try distributing objects into bags that can be carried on either side of your body.
• Try wearing a backpack.
• Remember to breathe slowly and evenly, inhaling deeply and exhaling through pursed lips.
• If too short of breath, use a trolley or shopping cart to transport heavy loads.

PUSHING
• Place hands firmly on object.
• Bend knees slightly, keep back aligned and direct force toward destination. The force should come from the hips and ankles.
• When vacuuming or sweeping, move your feet and legs rather than reaching or bending forward.
• Remember to exhale on exertion: Inhale, then exhale as you push.

ORGANIZING YOUR SPACE
• Store commonly used items at a comfortable height – between your waist and shoulders – to reduce the need for bending or reaching up.
• If you live in a two-storey home, keep a set of frequently used objects (e.g. cleaning supplies, urinal) both upstairs and downstairs.
Attachment 3: Community Resources

If you need help…

- Performing your daily activities such as bathing, meal preparation or house cleaning
- Running errands such as shopping or banking
- Driving your car or taking public transportation
- Maintaining your work or leisure activities
- Obtaining a mobility aid (wheelchair, walker or electric scooter) or any other device that would enable you to maintain your independence

Contact an OCCUPATIONAL THERAPIST at your hospital or community clinic.
ACKNOWLEDGEMENTS

This session has been developed in collaboration with the Multidisciplinary Team of the Pulmonary Rehabilitation Program PEP at the Montreal Chest Institute.

Authors:

D. Nault, RN, MSc • M. Sedeno, BEng, MM
J. Lamb, BSc, OT, MA • S. Mak, BSc, OT • B. Beresford, BSc, OT
J. Bourbeau, MD, MSc, FRCPC

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