



Virtual Learning

Medical Interventions Biofeedback Therapy

April 22, 2020



Medical Interventions

Lesson: April 22, 2020

Objective/Learning Target:

Recognize that biofeedback therapy is a technique in which patients are trained to improve their health or manage pain by learning to control certain internal bodily processes that normally occur involuntarily, such as heart rate, respiration rate, and skin temperature. (3.3.2)



Let's Get Started:

1. Watch this [video](#) that describes what biofeedback therapy is and how it is done using biofeedback devices.
2. Read the background information on why biofeedback therapy is performed for [cancer patients](#).



Lesson Activity

Use [this link](#) to explain how each of the following relaxation techniques can be used for controlling the body's response to stress:

1. Deep breathing
2. Guided imagery
3. Progressive muscle relaxation
4. Mindfulness meditation



Lesson Activity - Answers

Use [this link](#) to explain how each of the following relaxation techniques:

1. Deep breathing
 - a. involves focusing on taking slow, deep, even breaths
2. Guided imagery
 - a. people are taught to focus on pleasant images to replace negative or stressful feelings, may be self-directed or led by a practitioner or recording
3. Progressive muscle relaxation
 - a. involves tightening and relaxing various muscle groups, often combined with guided imagery and breathing exercises.
4. Mindfulness meditation
 - a. you learn to concentrate on the physical sensations of warmth, heaviness, and relaxation in different parts of your body.



Practice

View each of the following to see if you can lower your stress/heart rate. Use the heart rate recording function on your cell phone or smart watch if you can.

1. [Deep breathing](#)
2. [Guided imagery](#)
3. [Progressive muscle relaxation](#)
4. [Mindfulness meditation](#)

Which of the techniques worked best for you? How do you know?



Additional Practice

1. Do you expect your heart rate, respiration rate, and temperature to go up or down in times of stress? Explain your reasoning for each.
2. Why do you think seeing the body's reaction on a screen may help some people control their stress levels?
3. Try having your family complete the relaxation techniques and explain to them how biofeedback therapy can be a useful tool for pain management.



Additional Practice - **Answers**

1. Do you expect your heart rate, respiration rate, and temperature to go up or down in times of stress? Explain your reasoning for each.
 - a. HR/resp increase due to the fight or flight response activated causing heart rate to increase to get more blood to muscles/increasing oxygen demand, decrease skin temp as blood diverted to other organs
2. Why do you think seeing the body's reaction on a screen may help some people control their stress levels?
 - a. They can directly see the effect of their body's reaction using exercises and adjust accordingly
3. Try having your family complete the relaxation techniques and explain to them how biofeedback therapy can be a useful tool for pain management.



Additional Resources

1. Read [this article](#) to learn how you can try biofeedback therapy using your cell phone.
2. Try searching and downloading an app that deals with one of these techniques or biofeedback therapy to use during quarantine.