

SAFE AND SOUND

Pain Management

PRESCRIBING

Biofeedback

Biofeedback is a therapy that gives us information about the patient's body. Just like the feedback you receive when you step on a scale or take your temperature. Biofeedback measures muscle tension, heart rate and breathing.

It is common for people who feel pain to hold their breath, breath very fast and tighten their muscles, which can make pain worse. Biofeedback measures how tight muscles are and how fast the patient breathes. A psychophysicologist uses this information to teach the patient how to change these reactions in order to feel better.

How biofeedback works:

- Pads are placed on the skin over the muscles.
- A computer shows us what the body is doing.
- When the muscles tighten, we can see the changes on the computer.
- The patient may hear sounds when the muscles get tense or tighten up; the sounds stops when the patient relaxes.
- As the patient grows more skilled at relaxing the muscles, the patient can even play a game on the computer. The patient's ability to relax controls the game on the computer.
- With the computer games, the patient learns how to relax and stay focused during difficult times.

A typical biofeedback session lasts between 30 and 60 minutes. The number of sessions needed to resolve an issue will vary depending on a number of factors, including how quickly the patient learns to control their physical responses.

Indications

- Chronic pain
- Anxiety disorders
- Tension and migraine headaches
- Myofascial pain and fibromyalgia
- Hypertension
- Irritable bowel syndrome
- Muscle tension
- Raynaud's disease

Contraindications

- Acute psychiatric emergencies
- Severe psychosis
- Use as the sole treatment for management of severe hypertension
- Dermatological conditions (e.g. eczema, dermatitis)
- Allergy to the electrode or contact material (tape / gel)
- Patients who are unable to understand or respond to the instructions of the therapist

Caution

- Diabetics and others with endocrine disorders, as it can change the need for insulin and other medications.

How to order biofeedback for an outpatient at CCMC:

Biofeedback is offered to pain clinic patients. If your patient has chronic pain, place a consult for the pain clinic.

Insurance:

Biofeedback is covered by some insurances. Prior authorization is often required.

Community resources:

Biofeedback Certification International Alliance BCIA <http://www.bcia.org/i4a/pages/index.cfm?pageid=1>

Recommended Apps, websites, and tools for the patient’s personal use

| Self-Regulation Apps | | | |
|----------------------|--|---------|--------|
| App | Purpose | Android | iPhone |
| Breath2relax | Used to relax and pace individual breathing patterns by teaching proper breathing techniques. This app allows each user to log successful breathing sessions that are placed into a graph to view progress. | x | x |
| Calm | Calm allows you to pick a calming scenery, select calming music, and allows you to choose the time you would like to use the app as well as a timer feature that reminds you to take a moment to relax on a schedule you choose (i.e. every night before bed). This app has many different teaching tools such as, “The 7 Days of Calm”, “The 21 Days of Calm”, “The 7 Days of Sleep”, and many more that are all aimed to increase relaxation. This app can also be utilized online at a computer at www.calm.com | x | x |
| Smiling Mind | This app helps with dealing with everyday stress by practicing mindfulness meditation that you can do anywhere! | | |
| Buddha Board | This app aims to help you master the art of letting go. The basis of this app is of the Zen concept of living in the present moment. You can draw anything you want on the Buddha board and it slowly disappears; leaving you with a clean slate. | x | x |
| Bellybio | Interactive breathing that paces your breath with the ocean waves. | x | x |
| SuperBetter | Game that helps you fight pain, headaches, and sleep better, etc. Learn to fight bad guys, create alliances with people who help you, go on quests to overcome your problem, and learn how to “power up”. (Note, this is now a paid app, but the website is free!) | x | x |
| WebMD Pain Coach | Track pain and treatments with great advice on coping and self-care! | x | x |
| iChill | This app teaches the community resilience model which utilizes a set of self-help skills that help deal with stress. | x | x |
| CardioZen: Cardiac | Trains your breath to pace according to what is healthiest for your body while syncing your heart rate with it. When heart rate and breath become synchronized, depending on the scenery chosen, you begin | x | x |

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| Coherence Everywhere | to see new things appear that interact with your progress. For example: the beach scene is still until breath and heart rate synchronicity are achieved. When that happens, the waves move, the birds make noise, palm trees appear, etc. <i>*Make sure to be aware that this app is mostly in french unless you look for the English language version*</i> | | |
| Headspace | Guided meditation and mindfulness techniques with peaceful noises and/or music to assist in achieving relaxation. | x | x |
| Colorfy | An app that allows you to color different templates. Coloring is relaxing and is a great way to practice mindfulness. | | |
| Gratitude Journal | The Institute of Heartmath (http://www.heartmath.org/), shares extensive research on the relationship between thinking thoughts of appreciation and feeling relaxed and at ease. This allows you to pick 5 things you are grateful for each day to assist with emotional and physical discomfort. | x | |

| Self-Regulation Websites | |
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| Website | Purpose |
| www.Youtube.com | Understanding Pain: What to do about it in less than five minutes- terrific video explanation of the problem of chronic pain and the solutions which actually work. |
| www.TED.com | All the videos are helpful but here are <i>some</i> specific recommendations: https://www.ted.com/talks/guy_winch_the_case_for_emotional_hygiene https://www.ted.com/talks/elliott_krane_the_mystery_of_chronic_pain https://www.ted.com/talks/maysoon_zayid_i_got_99_problems_palsy_is_just_one https://www.ted.com/talks/amy_purdy_living_beyond_limits |
| www.superbetter.com | This TED Talk explains how super better can help with pain and the effects of chronic pain. https://www.ted.com/talks/jane_mcgonigal_the_game_that_can_give_you_10_extra_years_of_life |

| Biofeedback Home Tools | |
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| Website | Purpose |
| www.Heartmath.com | \$99 dollar heart rate variability biofeedback trainer for smartphone or tablet |
| http://bio-medical.com/products/gsr2-biofeedback-relaxation-system.html | The GSR 2 is a single channel Galvanic Skin Resistance monitor. The GSR 2 measures minute changes in skin pore size and sweat gland activity as it relates to tension. |
| http://bio-medical.com/products/pip-personal-handheld-biosensor-white.html | My Pip is your cloud platform for better living. My Pip uses actionable data and insights to provide encouragement and keep you motivated as you learn to successfully manage stress and kick start a life in control. |
| http://bfe.org/new/try-our-breath-pacer-ez-air-plus/ | Allows you to buy software that can be placed on your computer for your desktop that will measure your breaths using a small window that you can see as you breathe and work (or as you are on the computer for any reason). |