



ERGONOMICS / POSTURE / SLEEP HABITS

## Microbreaks: An Increasingly Popular Prevention Tool

Paul Hooper, DC, MPH, MS

Microbreaks are short breaks that are taken frequently throughout the workday. Properly used, they can reduce the strain on anatomical structures. They also have been shown to positively affect productivity.<sup>1</sup> Obviously, not all jobs or tasks are amenable to the use of microbreaks. But for those that are, they make a great deal of sense.

Microbreaks are also becoming more popular, both in the workplace and as a topic of discussion. For example, I recently went to a continuing-education event at Southern California University of Health Sciences (shameful plug). During the CE event, all of the speakers addressed the issue of microbreaks as a way of reducing muscle fatigue.

### Microbreak Basics

A microbreak is a break that lasts anywhere from 30 seconds to as long as 5 minutes, and is meant to be taken frequently – as often as every 10 minutes. Evidence suggests microbreaks actually reduce muscle fatigue by as much as 20-50 percent in an eight-hour day.<sup>2</sup>

It's important to contrast the microbreak with the traditional break at work. As an example, workers often begin their shift at 8 a.m. Around 10 a.m., they take a scheduled 15-minute break, after which they return to work. At noon or so, they get another break for lunch (also scheduled). They return to their jobs at 12:30 p.m., with another 15-minute break scheduled at some point in the afternoon.



To illustrate the microbreak, I'll use the following example. When someone uses a manual typewriter (remember those?), regardless of how fast a typist they are, at some point the sheet of paper runs out. The typist must stop the act of typing long enough to put in a new sheet. While this only takes a few seconds, it forces the typist to take a microbreak.

Contrast this to someone using a modern computer, who thus has a never-ending sheet of paper and can type for an indefinite period of time. With that in mind, it's no real surprise that conditions such as carpal tunnel syndrome are more common in computer users.

To offset the effects of constantly striking the computer keys, I've long suggested drinking a glass of water every hour. This has significant benefits for the typist. First, it stops the typist long enough to take a microbreak. Second, it forces the typist to stop periodically, leave their computer, walk (to get a new glass of water) and perhaps even go to the bathroom. In other words, it makes them become physically active. Finally and perhaps most importantly, it hydrates the typist, which is always a good thing.

### Microbreaks as Prevention

Stanford University provides the [following tips](#) to minimize the development of health issues by taking microbreaks and/or changing up your routine<sup>3</sup> (I've made a few changes):

- Take microbreaks (approximately 30 seconds to 1 minute in duration) every 10 minutes.
- Avoid extended periods of continuous tasks (e.g., typing) by taking short breaks or performing other tasks (e.g. filing, talking on the phone, etc.).

It is important to build microbreaks into the daily routine. As such, Stanford also provides the following ideas for making breaks a part of the workday:

- Move the printer to an area that requires you to stand up and walk to get a printout. (My printer is in another room.)
- Stand up when talking on the phone (the use of a stand-up desk is also helpful),
- Go to the restroom or get a cup of coffee / water (frequently; remember the glass of water every hour),
- Break up continuous computer time with tasks such as checking phone messages, reading reports, etc.

The folks at Stanford also provide the following exercises and stretches as suggestions:

*Eyes* - Eye strain is particularly problematic for those who stare at computer screens for long periods:

- *Eyes around the clock* - Look straight ahead. Without moving the head or straining the eyes, focus on the 1 o'clock position of an imaginary clock placed in front of you. Next, focus on the 2 o'clock and 3 o'clock positions, and so on, until reaching the 12 o'clock position. Repeat the same exercise in a counterclockwise direction.
- Close both eyes tightly for a second or two and then open them widely (repeat several times).
- Refocus the eyes momentarily on an object at least 20 feet away.
- *Neck and Shoulders* - We seem to live in an environment that places a constant strain on the neck and shoulders:
- *Shoulder circles* - Lift the shoulders toward the head. Pinch the shoulder blades to roll the shoulders back, and let the shoulders drop down to the starting position. Try to move the shoulders in a circular fashion. Repeat.
- *Shoulder shrugs* - Lift the shoulders toward the head. Hold for 1-3 seconds and then relax. Repeat.
- *Shoulder pinches* - Pinch the shoulder blades together. Hold for 1-3 seconds and then relax. Repeat.
- Slowly turn the head to the side and hold for 10 seconds. Alternate sides and repeat.
- Slowly tilt the head to the side and hold for 5-10 seconds. Alternate sides and repeat.

*Hands* - Problems with the hands and wrists are endemic in the workplace:

- *Catch and release* - Clench the fists slowly and hold for a few seconds. Slowly open the hand and spread the fingers. Hold this position for a few seconds and repeat.
- *Flex and extend* - Raise the arms out in front with the palms facing down and the fingers flat. Slowly extend the wrists and fingers so they are pointing up. Hold this position for a few seconds. Slowly lower the wrists and fingers so they are pointed toward the ground and hold for a few seconds. Repeat.
- Place the hands together with the fingers spread apart and fingertips at chin level. Slowly lower the hands, peel them apart and then reverse the process. Repeat.

*Low Back* - Even though we know more about low back pain than ever, it doesn't seem to be going away:

- Stand with hands on the hips and feet about shoulder-width apart.
- Slowly lean the hips forward while keeping the shoulders slightly back. Hold the stretch for 5-10 seconds.

Chiropractic and Microbreaks

It is worth pointing out many of these positions are similar to the [Brugger position](#) (i.e., all joints and muscles are in extension). Since for many people, much of the work day is spent in a forward-bent position (i.e., flexed), extending periodically makes a great deal of sense. The forward-bent position also makes a case for conditions such as "[texter's neck](#)."

Does anyone else remember the Alexander technique? It focuses on producing appropriate posture. Then there's Joseph Pilates - he made postural exercise a part of the dancer's routine before we knew anything about the "core."

Exercise and other aspects of healthy living have always been a part of the armamentarium of the chiropractic profession. In my classes over the years, I've taught that many conditions have multiple causes and multiple solutions. It would appear that the use of microbreaks is one such part of the puzzle.

### *References*

1. Henning RA, Sauter SL, Salvendy G, Krieg EF. Microbreak length, performance, and stress in a data entry task. *Ergonomics*, 1989;32(7):855-864.
2. Dul J, Douwes M, Smitt P. A work-rest model for static postures. *Designing for Everyone: Proceedings of the 11th Congress of the International Ergonomics Association*, 1991;1:93-95.
3. "Ergonomics: Work Breaks, Exercises and Stretches." Stanford University, Environmental Health and Safety.

FEBRUARY 2016