

# Good Physical and Mental Study Habits Can Reduce Exam Stress

December 8 2006

---



Maintaining proper ergonomics is not crucial for simply studying for short periods of time around campus, says Joines. Photo: Roger Winstead

It's the end of fall semester, and if you're a student, you're probably tired, stressed and looking forward to a couple of weeks of rest, relaxation, home-cooked meals and free laundry. But before you can kick back and enjoy yourself, you've got to make it through the most nerve-wracking portion of the semester: exams. And studying for them can be every bit as taxing — physically and mentally — as taking them can be.

Fortunately, there are some steps you can take to minimize physical stress and maximize mental agility before you sit down to show your professors what you've learned over the last 15 weeks.

According to Dr. Sharon Joines, ergonomics specialist and professor of industrial design in the College of Design, a major component of successful studying is environmental.

“It’s really important that where you sit and the surface you’re working on are adjusted to fit your body properly,” Joines says. “When you’re hunched over staring at a book or a screen, or your arms are being held at an unnatural angle while you use a mouse or keyboard, your muscles start to cramp up, which causes discomfort. You may unconsciously start to fidget while your body tries to find a comfortable position, and more often than not you’ll end up in some contorted postures.” These postures don’t benefit either the body or the ability to concentrate, she adds.

Since dorm room desks aren’t adjustable, Joines recommends investing in a height-adjustable chair. Ideally the chair should have good lumbar, or back, support and a seat pan that can slide in or out. “Your feet should be flat on the floor when you’re seated, and the full length of your legs should be supported — that’s where an adjustable seat pan comes in.”

“If you’re short, then you should adjust the height of the chair so that you can reach the work surface, and then use a stool — or even something inexpensive like a box-- so that your feet are still supported.”

For students on a budget, it might be easier to bring the desk down than the chair up, particularly if keyboard or mouse usage is involved. A simple rectangle of plywood that’s sturdy enough and long enough to accommodate both a keyboard and mouse can be positioned across the lap, eliminating stress on wrists and shoulders. But if you’re using a laptop, you might want to invest in an extra keyboard — moving the screen downward and out of your direct line of sight will pull your head down and increase tension on the neck.

“When you’re studying on campus and you’ve got your laptop literally in

your lap, that's fine, because it's temporary," Joines says. "But for longer study periods it's important to keep the screen at eye level."

Speaking of eyes, don't forget to give them an occasional break as well. "People don't realize that the muscles surrounding the eye need to stretch and move around just as much as the muscles in the rest of our body. When you study, everything you're using tends to fall within the same visual field — about an arm's length in front of you. The eye muscles don't get to move around like they should, which leads to eye strain and fatigue." Joines recommends placing a picture, postcard or calendar on the wall in front of you or off to the side. "Make sure it's a three-dimensional picture, not something like a Far Side comic strip," says Joines. "The depth of field will draw the eye into the picture, and relieve the muscle tension in the eyes."

In addition, make sure your workspace is properly lighted. "If your computer screen has a glare spot on it, adjust the lighting or the screen — don't just move your head so you can compensate for the glare."

And no matter how ergonomically correct your workspace is, it's never a good idea to stay in one position for too long. Joines recommends getting up every half hour or so, just for a couple of minutes, to move around or do some simple stretches. "Set an alarm, or keep your soda or water across the room from you, so that you're forced to move around," she adds.

## **Total Recall**

Now that you've designed the perfect study space, it's time to get down to business — making sure that all the knowledge you've accumulated over the course of the semester is committed to memory and ready to be tested. Unfortunately, if you think you're going to be able to make up for the studying you skipped during the semester in the night before the

exam, you need to think again.

Dr. Doug Gillan, professor and department head of psychology in the College of Humanities and Social Sciences, says that the key to learning anything is not to try and learn it all at once. “It’s what we refer to as spaced practice versus massed practice,” he says. “Learning is more effective when you do it a bit at a time. So if you’re studying for multiple exams, spend some time on one subject and then take a break and work on something else for a while.”

The goal, Gillan says, is to get information from short-term, or working memory, into long-term memory. Most students make two mistakes when studying — they try to cram for the exam, which doesn’t allow them time to actually process the information into long-term memory, and they rely on rote memorization, which isn’t a very effective way of learning. Instead, Gillan recommends that students use a technique he refers to as DIET: Define, Interpret, Example, Theory.

“When you’re learning a concept, start with the definition,” Gillan says. “It can be from a textbook, but don’t just memorize that definition. The goal is to make the concept personal to you, so that you have a connection to it within your memory.”

“After defining the concept, interpret it — put it into your own words. Then find an example of the concept that is meaningful to you, so that you’re taking an abstract idea and making it something you can relate to. Finally, try to place the information into a broader context, whether a theory or a conceptual framework.

“Human memory is very organized. We learn things best when we can put it into a pre-existing category within our memories,” Gillan adds.

Another way to make sure you retain the information you’re studying is

known as state-dependent learning. Accessing information is easier if your mind and body are in the same state of mind as they were when you first learned it. That's another reason why all-night cram sessions are a bad idea, according to Gillan. "If you've stayed up all night drinking excess amounts of caffeine and trying to learn the information, there's really no way to duplicate that environment during the test," he says. "You're just making it more difficult to retrieve the information from your memory."

During the exam, Gillan has recommendations for things you can do to make accessing your memories easier. First of all, be well rested. "Some tests may have complicated or confusing instructions. You need to be able to read and understand these instructions, and a good night's sleep will ensure that you're clear-headed enough to do so," he says.

Once information has been stored in long-term memory, humans access it by retrieving it and putting it into working memory. We do this by using retrieval cues—which includes remembering the environment in which we first encountered the information. So if you're having trouble remembering a particular fact, Gillan says you can often remember your way around it. "Visualize the classroom where you learned the information, or think about where in the textbook the information is located," Gillan says.

So, while all-nighters and awkward study spaces may seem like tried-and-true college traditions, methodical study practices and proper ergonomics are more effective, less stressful paths to academic success.

Source: By Tracey Peake, NC State University

Citation: Good Physical and Mental Study Habits Can Reduce Exam Stress (2006, December 8)

retrieved 4 May 2024 from

<https://medicalxpress.com/news/2006-12-good-physical-mental-habits-exam.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.