

Math Anxiety

When Anxiety Strikes

If you are under stress or feeling anxious, such as during a test, your body secretes **adrenaline** into your system. Adrenaline in the brain blocks connections between neurons. In other words, you can't think! If you've ever experienced "blanking out" on a test, you know what adrenaline does.

Where Does Math Anxiety Come From and What Is It?

- Negative experiences in working with teachers, tutors, classmates, parents or siblings.
- Stress or a personal problem that was going on while learning a concept.
- Math anxiety is an emotional reaction to mathematics based on a past unpleasant experience which harms future learning. A good experience learning mathematics can overcome these past feelings and success and future achievement in math can be attained.
- Math anxiety is a type of fear, a learned emotion – you weren't born with it
- Math anxiety is fear from participating in a math class, listening to a lecture, working through math problems, discussing mathematics

Three Types of Math Anxiety

Students can have one, two or all three of the following anxieties:

1. **Math test anxiety:** involves anticipation of, completion of, and feedback from math tests
2. **Numerical anxiety:** refers to everyday situations that require numbers and arithmetic calculations
3. **Abstraction anxiety:** involves working with variables and mathematical concepts used to solve equations

Symptoms of Math Anxiety

PANIC – feeling of helplessness, like a brick wall has come down and you can never do better and have reached your limit

PARANOIA – feeling that everyone else knows the answer except you

PASSIVE – attitude that either you have a math mind or you don't and nothing can be done about it to become better in math, so you sit back and don't take action

LACK OF CONFIDENCE – you don't trust your intuition; you rely on memorizing rules instead of understanding the concepts

Student Testimonials -- You are not alone!

- When I see a math problem, my mind goes completely blank. I feel stupid, and I can't remember how to do even the simplest things.
- I've hated math ever since I was nine years old, when my father grounded me for a week because I couldn't learn my multiplication tables.
- In math, there's always one right answer, and if you can't find it you've failed. That makes me crazy.
- Math exams terrify me. My palms get sweaty, I breathe too fast, and often I can't even make my eyes focus on the paper. It's worse if I look around, because I'd see everybody else working, and know that I'm the only one who can't do it.
- I've never been successful in any math class I've ever taken. I never understand what the teacher is saying, so my mind just wanders.
- Some people can do math – not me!

Math Is Different!

- Requires different study processes – you have to learn it, understand it, and apply it to do the problems.
- A linear process – the skills you learn one day are used as the basis for the next topic.
- Much like a foreign language – must be practiced every day.
- Different in a college than in high school – you do not meet the class every day, and what was covered in a year in high school is now covered in 14 weeks.

Some Facts to Remember

- Math anxiety is usually a result of past experiences that were negative. As a result of these experiences, any time a person is put in a similar situation, he or she gets anxious.
- Math anxiety is not related to how smart a person is.
- Math anxiety is a learned condition; therefore in most cases, it can be unlearned or at least managed.
- A person must be willing to change and find strategies to practice continually that will help manage math anxiety.

Ways to Reduce Math Anxiety

1. Realize that you are not alone!
2. Admit it! Once you recognize that you have math anxiety, you can start to overcome it.
3. Become aware of where your math anxiety began.
4. Recognize your self-defeating talk and correct it to a more positive talk. "Talk" mathematics.
5. Try to avoid teachers/tutors/peer/family who aren't helpful or supportive.

6. Trust your instincts and don't put down your approaches to a math problem. Do math in a way that is comfortable for you. Remember there is usually more than one way to do a math problem.
7. Ask questions. This is the way towards better understanding. Besides, other students will be glad you asked. Keep in mind – there's no such thing as a stupid question.
8. Know the basics. Go back and review concepts from an earlier math course.
9. Consider math a foreign language -- it must be practiced.
10. Don't rely on memorization to study mathematics. Try to understand the concept. If you are anxious, your memory is the first to go.
11. Don't put off math until the last minute. It's better if you do a little math every day – build it into your schedule.
12. Read your math text, follow the examples and explanations.
13. Decide what type of study environment works best for you (quiet place at a table, or music in the background in a comfortable chair, etc.) Be relaxed and comfortable while studying math.
14. Take breaks. Don't work for hours on end. Sometimes it's best to walk away from a problem and come back to it later.
15. Study math according to your learning style.
16. Get help the same day you don't understand. If you are having difficulty, seek help as quickly as possible from your instructor, Math Lab, the Tutoring Center, or fellow students.
17. Develop responsibility for your own successes and failures.
18. Don't pressure yourself. Take pride in the strides you do make. Math anxiety is not cured in a day. It's a slow process.
19. Make an appointment with your math instructor before your first test to discuss your math history and anxiety, and ask for suggestions.
20. Email questions to your instructor if you feel uncomfortable asking in class.