

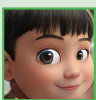


WHAT ARE THE HEALTH BENEFITS OF ORGANIZED SPORTS?

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YOUNG REVIEWERS:



JOHNSON

AGE: 13



TOM

AGE: 13

Joining an organized sport through school, your community, or a club is a great way to stay physically active. Staying active is an important part of staying healthy. This article will talk about how participating in organized sports can increase your physical activity level, keep your heart strong so you can run without getting as tired, strengthen your bones to avoid bone weakening, and keep your thoughts positive so you do not give up when activities get difficult. This article will discuss which sports bring about which benefits, how long these benefits last, and how long you have to play a sport to see progress. Because some of the health improvements have their maximum effect when they are started during adolescence, you should probably start reading about the benefits and then start moving!

ORGANIZED SPORTS ARE A GOOD WAY TO EXERCISE

Most people realize that exercise is one of the most important things we can do to stay healthy. There are many suggestions about how much we should exercise each day. But let us be honest; exercising daily can be difficult. It is easy to skip exercise when you have a lot of schoolwork, or when you want to hang out with friends, or play your new video game. Some people find it easier to exercise each day if they are involved in organized sports. This article will discuss differences between casual exercise and organized sports. It will review current research findings regarding the physical and mental benefits of regular physical activity during adolescence. Many benefits of regular, consistent physical activity even extend into adulthood.

ORGANIZED SPORTS

Sports that are organized by a school, club, or community.

SELF-ORGANIZED PLAY

Free play that you organize by yourself.

First let us look at differences between **organized sports** and activities kids organize on their own, which are known as **self-organized play**. Organized sports are activities run by a school or community. A few examples include school sports, Amateur Athletic Union basketball, Little League baseball, and club sports. You may have seen posters inviting you to get involved with these teams. Not surprisingly, kids in organized sports have higher levels of activity compared to kids in self-organized play. This may be because organized sports typically meet multiple times per week and are led by a coach. The advantage of coaches is that they often provide high-intensity training, without causing injury, and also supply motivation. Therefore, involvement in an organized sport may increase the number of hours per week kids exercise, the intensity of the activity, and how many years a person stays with that activity. These factors have important health benefits, as you will soon learn. However, it is also important to consider that organized sports are a large time commitment and they take time away from other aspects of your life. Let us examine some benefits of regular exercise participation to help you decide if you want to invest your time in organized sports! Specifically, we will discuss benefits to your cardiovascular system, your skeletal system, and your mental health (Figure 1).

CARDIOVASCULAR SYSTEM

The **cardiovascular system** (CVS) is made up of the heart, lungs and blood vessels. A primary purpose of the CVS is to deliver oxygen, carried by the blood, to cells throughout the body. Cells need oxygen to generate energy and perform work. For instance, during physical activity you may run or jump and your muscles perform a multitude of contractions. Your muscle cells need more oxygen to generate energy to fuel the contractions. The cells receive oxygen from your blood.

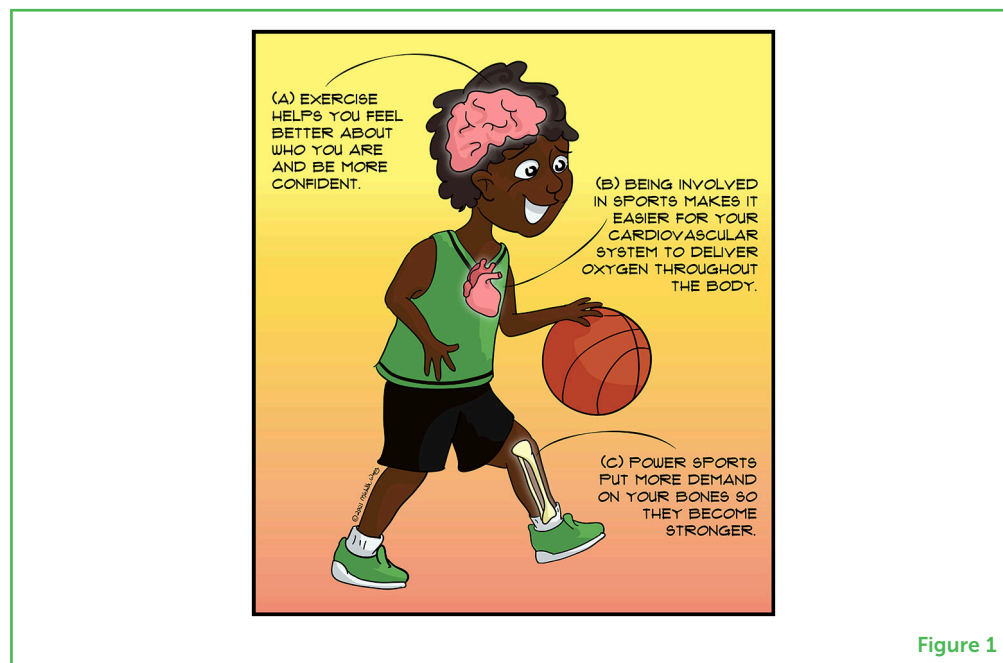
Here is a quick summary of how your CVS works. First, the blood picks up oxygen as it passes through vessels around your lungs. Then the

CARDIOVASCULAR SYSTEM

Made up of the heart, lungs, and blood vessels to deliver oxygen, carried by the blood, to cells throughout the body.

Figure 1

Participation in organized sports improves (A) self-esteem and self-efficacy, (B) ability of the cardiovascular system to deliver oxygen, and (C) bone strength.



oxygen-carrying blood gets a push from your pumping heart and flows through your vessels to cells throughout your body. During physical activity your cells need more oxygen. Your breathing rate and heart rate increase so your blood can deliver more oxygen to the cells in your hard-working muscles! Regular physical activity trains your CVS so it can deliver oxygen to your cells more efficiently.

There are tests to measure the efficiency (health) of your CVS. Sometimes these tests, such as a stress test, are performed in a doctor's office. However, other tests to measure how well your CVS is functioning are administered in school. You may be familiar with these school-based tests: pacer test, shuttle run rest, beep test, and the mile run or the 2,400 m run. Like the stress test, these tests estimate how efficiently your CVS is delivering oxygen to cells throughout your body. Of course school-based tests are not as accurate as a stress test in the doctor's office, but they are all trying to measure the efficiency of your CVS.

It is probably not surprising to hear that kids involved in regular activity, such as organized sports, perform better on CVS tests. Some researchers found that boys who participated in sports ran, on average, an extra 2 min and 6 s during a shuttle run test, and girls ran an extra 1 min and 15 s [1]. Maybe you are not interested in running longer, but there are other benefits to having better CVS function during adolescence. Researchers found that improving CVS fitness also improves academic performance [2] as well as social and emotional wellbeing! If these are not enough reasons, it has also been found that better CVS functioning during adolescence results in a healthier adulthood and a longer lifespan [3]. So, research tells us that a healthy and efficient CVS does not just mean you can run longer. Keeping your

heart, lungs, and entire CVS healthy during adolescence helps your mood and your school-work, and may increase your lifespan!

BONES

Contrary to what many believe, bones are flexible, living tissues. They are constantly remodeling by growing in some areas and shrinking in other areas. Our bones remodel in response to the demands we put on them. One way our bones respond to demands is to create more bone cells and thereby become denser. Dense bones are stronger bones and stronger bones are less likely to break. As you might expect, physical activity leads to denser, stronger bones. So, if physical activity creates stronger bones you would be right to think that participating in sports does a better job strengthening bones than self-organized play. But, not all sports are created equal. **Power sports** (Table 1) involve a lot of running and quick jumping movements, which put greater demands on your bones. These greater demands cause your bones to lay down more bone, become denser, and protect you from fractures. It does not take a lot of extra time to improve your bone strength. Participating in a power sport for as little as 1 h a week could increase bone strength by 25% over 2–3 years. If you are looking for even greater returns, 11–16 h of power sports per week can increase bone strength 96% [4]! Starting a power sport as early as possible is important. You might be in a great position right now, because childhood into the teen years is the best time to create stronger bones through sports. It is important to start early and be as consistent as possible. Hours of power sports may be good for your bones, but be careful! You need to exercise correctly to avoid injuries. A benefit of organized sports is that coaches can offer a safe way to perform a lot of exercise without causing injury. If your future self falls and does not break a bone, it may be due to the running and jumping you did as a teenager!

POWER SPORTS

Sports that require running, jumping, and quick, explosive movements.

Table 1

Common sports and their associated benefits.

Sport	Power sport (strengthens bones)	Improves cardiovascular endurance (and possibly academic achievement)	Team sport (promotes friendships)
Basketball	✓	✓	✓
Volleyball	✓	✓	✓
Gymnastics	✓		
Track	✓ ^a	✓	✓ ^b
Soccer		✓	✓

^aDepends upon specific track event.

^bCan be individual and team sport.

Table 1

MENTAL HEALTH

In addition to physical benefits, researchers have examined two related attributes that can be improved by participating in organized sports;

SELF-ESTEEM

How you value and see yourself?

SOCIAL ACCEPTANCE

How you are valued and accepted into social interactions?

EXERCISE SELF-EFFICACY

How capable you feel to participate in exercise?

self-esteem and **social acceptance**. Self-esteem is how you see yourself. Research has found that higher levels of physical activity helped both boys and girls to have better self-esteem, which means that they felt better about themselves [5]. Kids in organized sports use more active and problem-focused approaches to cope with everyday issues. These coping approaches help them to tackle their daily problems, rather than ignoring them or waiting for issues to pass. Coping with problems head-on increases self-esteem and lowers anxiety, and could help you manage stress both now and as an adult. Research also found that kids in organized sports were more likely to reach out to friends and family when they felt overwhelmed. They were more willing to take advice from others and engage in effective conversation. These social habits strengthen relationships and improve social acceptance. Organized sports may help kids socially, because they can offer social experiences not found in self-organized play. For example, organized sports can offer positive feedback from coaches, pride in developing new skills, and peer support from the team.

Mental health benefits from involvement in sports apply to children of diverse backgrounds and abilities. A strong association was found between involvement in organized sports and **exercise self-efficacy**, which is how capable you feel to participate in exercise. In a study done on kids with chronic disease or physical disabilities, a strong association was found between involvement in organized sports and feelings of confidence in their ability to exercise, which could help kids develop healthy exercise habits for the rest of their lives [6]. Participating in organized sports can help build perseverance, self-image, a social support network, and coping strategies that can be used throughout life.

FINDING RESOURCES

It can be overwhelming to find resources to help you get involved in organized sports, but there are many useful tools that can be used in your search. A Google search such as “organized sports opportunities near me” will produce multiple pages of results. Specific countries have their own websites and organizations as well¹. Another way to find organized sports in your community is to look at your community’s recreation website. Additionally, Special Olympics is an international organization that offers organized Olympic-type sports to children with intellectual disabilities². On that organization’s website, a child and parent can select their state and region to find local programs. You could also talk to a teacher, librarian or guidance counselor to see if they have any suggestions or resources.

¹ A couple of examples include: the United States (www.bgca.org), the UK (www.nhs.uk), and China (<https://chinasportsunited.com/>).

² www.specialolympics.org

CONCLUSION

So, what are the major points to remember from this article? First, organized sports are not the only way to get active and stay healthy. You can simply go outside, or exercise in your home, and see health benefits all on your own. However, organized sports can be fun and can help you get regular- and possibly more intense- exercise. By participating in regular, vigorous exercise in your adolescence, you can improve your life now and into your adulthood, in several ways:

- Improving your cardiovascular health can decrease the risk of cardiovascular disease later in life, while also allowing you to run farther and feel less tired while doing various activities.
- One hour of power sports-per week can help strengthen your bones now, which may prevent a fractured bone in the future.
- Organized sports can also help how you view yourself. Higher self-esteem means you will see yourself in a more positive light, and feel better about who you are. You may be more likely to face problems head on, or to reach out to others for help or advice. These habits can help reduce stress and anxiety.

Although organized sports are not the only mode of exercise, they are a fun way to keep you accountable and consistent, and they can help you to develop friendships. If you are interested in joining an organized sport, look at the resources we provided. If needed, ask an adult for help. Most of all, choose a sport you love so you can have fun and experience the health benefits of exercise now and into the future.

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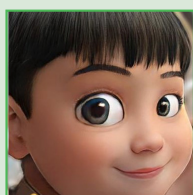
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YOUNG REVIEWERS

JOHNSON, AGE: 13

Hi, I am Johnson! I am 13 years old. I like doing coding, playing Minecraft, and posting on youtube. I believe that sharing knowledge online will be the trend of learning and studying. *Frontiers for Young Minds* is the best channel for us to learn actual science. Therefore, I decided to take up the young reviewer role.

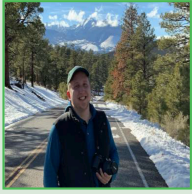


TOM, AGE: 13

I am in year 8 and although I enjoy most of my school subjects, I enjoy science (all 3 branches), math's, and geography most. Currently, I am undecided about exactly what I would like to be when I am older, but I am keen for it to be something related to science. Out of school, I enjoy basketball, drawing, and cubing. I hope to begin to learn karate soon.



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