

Many of the effects discussed by medical officials and fitness experts extol the physical rewards a person can reap through regular exercise. The discussion does not often associate exercise with mental health, in either a positive or negative light, and thus many people do not consider there to be any association. However, there is a clear impact that the mind has on the body and vice-versa. The two are inexplicably linked; a person's state of mind affects the functionality of their body, and issues of the body impacts a person's mental function. Ergo, what benefits the body often benefits the mind in some capacity.

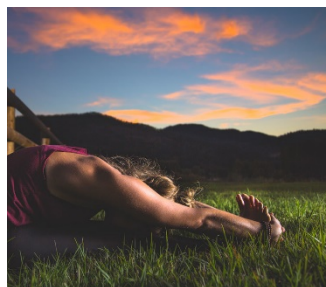


In this regard, there is some thought into what exercise can do for a person's mental health. Studies have shown a link between a person's bodily actions, such as exercise, and any mental health conditions they have. This has prompted some suggestion that regular exercise can improve or at least help the condition of a person's mental health. Understanding why this is possible, and how a person can use this information, requires some discussion on the aspects of the two.

THE BENEFITS OF EXERCISE

In general, any kind of physical activity generates benefits for those who are regularly active. These benefits can have immediate and long-lasting effect on a person's mental and physical well-being, as has been proven through numerous studies and observations.[\[1\]](#) Even in small, regular doses, exercise has presented identifiable benefits for those who engage in it.

The benefits of exercise are not limited to what it does to the body. Many regular exercisers experience psychological benefits and improvements to their overall health and social life. While these benefits are dependent on the frequency of exercise and its correct execution, it is entirely possible for everyone to reap the rewards if they are willing.

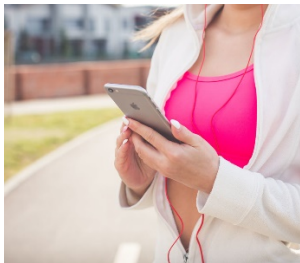


PHYSICAL

On a physical level, regular exercise strengthens many of the body's systems and muscles. Muscles build in mass and strength, resulting in the reduction of fat-based weight that many people seek with exercise. The heart, which is itself a muscle, strengthens with regular exercise and its general functions improve.^[2] Its ability to pump blood improves and more organs and muscles dependent on oxygen-rich blood for their own functions benefit through it. The heart also improves in its ability to handle stressors that can impede function. As a result, many health officials and organizations, like the American Heart Association, highly recommends physical activity for adults who wish to improve their overall health and avoid things like heart attacks and stroke.^[3] The health of a person's bones also greatly benefits from exercise. According to the Centers for Disease Control and Prevention, studies have shown that moderate exercise has the potential to slow bone density loss that many people experience as they age.^[4] This can help reduce the damage done to a person's bones when injured and strengthen arthritic joints.

PSYCHOLOGICAL

Many of the psychological benefits of exercise are a direct result of the physical benefits. Physical activity causes people to psychologically feel good about themselves, which improves their overall mood.^[5] The theories behind why this happens suggest that exercise prompts the release of certain chemicals in the brain, like endorphins, that induce a sense of euphoria in a person. There is also evidence to suggest that regular exercise aids a person's cognitive function, improving aspects such as memory and focus.^[6] It can also help reduce the rate in which those cognitive functions decline as a person ages, which may help slow the progression of conditions like dementia and Alzheimer's. Early results of some studies have also suggested that regular exercise can prompt neurogenesis, or the growth of new brain cells.^[7] The brain's overall function and performance is thought to benefit from exercise through the increased production of a protein called BDNF, whose levels seem to increase with physical activity.^[8]



SOCIAL

There are also some benefits of exercise that are socially-based. Some forms of exercise and physical activity can involve socialization, such as team sports. These activities require strong social skills like communication and teamwork for them to be effective and correctly executed. Even with solo activities, many people will use

the environment of a gym or fitness center as a place to test and practice their social skills and interactions with those around them. For many, exercise generates improvement to their self-confidence and self-esteem, which may affect their social habits.[9] Relationships generated through exercise can bring their own benefits as well; friends who engage in physical activities like exercise often encourage each other and motivate a person towards their goals. This can be incredibly useful for those who are facing obstacles in reaching their exercise goals and can help prevent them from getting discouraged and quitting.

OVERALL HEALTH

In many cases, regular exercise improves the condition of a person's overall health. There are risk factors for certain diseases that every person has that can be lowered or significantly reduced with the inclusion of physical activity.[10] In addition to helping lower the risks that can cause heart problems, as mentioned above, it can also lower a person's risk for cancer and diabetes.⁴ Two types of cancer, colon and breast, have been shown through research to be less prevalent amongst those who regularly exercised due to lowered risk factors. In cancer patients, exercise was shown to help improve their strength and stamina during treatment.[11] Those who already had been diagnosed with diabetes found that exercise aided in controlling their blood glucose levels and other levels affected by the disease.[12] As with any health improvements, there is some evidence to suggest that exercise can even prompt a person to live longer by reducing their risk of dying of diseases.

WHAT DOES EXERCISE DO FOR MENTAL HEALTH?

Generally, a person's overall mental health can improve thanks to the psychological benefits of exercise. This can include their mood, focus, confidence, and other mental functions. Their energy levels are usually higher, possibly due to improved stamina, and a person with a mental health condition is better able to handle its ups and downs throughout the day.[13] For many who become psychologically agitated, exercise can be used to calm their mind and help them relax when they need to.

While any person can reap the discussed benefits of exercise, there are some ways that certain mental health conditions can be affected as well.

FOR ANXIETY

Anxiety is best characterized as an irrational sense of dread that may be excessive for the identified cause and situation.[14] Those with anxiety have often described their response as being similar to the fight-or-flight chemical response that is triggered in times of stress; in truth, that is very similar to what is occurring in the mind of a person with an anxiety disorder.[15] When a person with an anxiety disorder engages in regular exercise, they are disrupting the processes of the condition in their brain.[16] Their reactions to their triggers can lesson,

or become easier to cope with. Even small instances of exercise, like a short walk, can have a quick effect on a person's anxiety and may even be an easy way for them to combat an anxiety attack.[\[17\]](#) Some therapists who treat patients with anxiety will prescribe exercise and physical activity much in the same way they would prescribe medication; not only are there fewer side effects, but it can have a similar effect.

FOR DEPRESSION

Depression, as a mental health condition, can intersect with other physical and psychological disorders. It is more than just "sad feelings" and can impact a person's through processes, behavior, and actions over a long period of time.[\[24\]](#) Like anxiety, it has an effect on the chemical processes of the brain and can actually cause the levels of those chemicals to drop. Many of the benefits of exercise that those with depression will find most useful is the increase in endorphins. This "happy" chemical is one that has its levels affected by depression so anything that safely reverses those effects, even temporarily, can be seen as beneficial.[\[25\]](#) Exercise helps a person combat the stress-induced triggers of depressive episodes; a study from Rutgers University found that exercising twice a week caused significant reduction in depression symptoms.[\[26\]](#) Regular exercise may be a more appealing option for those with depression who are wary of seeking medical attention, which studies have shown to be the majority.[\[27\]](#)

FOR ADHD

While there are those who are skeptical about the benefit exercise can have on a person with Attention Deficit Hyperactivity Disorder (ADHD), there is growing evidence that it does have significant effect on children and adolescents.[\[32\]](#) A cognitive disorder, many people with ADHD find difficulty in focusing on tasks, retaining information, and finding motivation. The benefits of exercise discussed previously included improvements to aspects of cognitive function such as those listed, which is one of the main reasons why exercise is often recommended for ADHD patients.[\[33\]](#) These benefits are similar to what can be generated through medication, but they lack some of the potentially dangerous side effects that medications like Adderall or Ritalin can result in. Adolescents with ADHD may find certain physical activities, like sports, to be a much more enjoyable alternative than any medicated or behavioral therapy treatments. Instilling exercise habits early on may even make it more effective than those methods and help provide them with a means of combatting other mental and physical health conditions they may face later in life.

FOR STRESS

Many people stress over trying to fit exercise into their schedules so it may be a bit odd to view exercise as a means of reducing stress. Stress is, unfortunately, a normal part of everyday life but it can be managed with the right methods.[\[18\]](#) Those with high stress levels often internalize it, which can affect the person's neural

connections and other parts of the body.[\[19\]](#) This is how stress can affect other mental and physical health conditions, such as those previously discussed. With exercise, a person can redirect their stress into the activity itself and express it in a non-destructive way.[\[20\]](#) Exercise helps soothe the psychological and physical effects of stress. Physically, tension in the body caused by stress can be alleviated through movement and activity and prevent physical discomfort. Psychologically, it prompts the production and reduction of certain neurological hormones that can have their own effect if left unchecked.[\[21\]](#) The hormone cortisol, for example, is often referred to as a stress hormone and can affect a person's sleep habits, induce sugar cravings, weaken immune responses and memory, and fat retention when found in high levels.[\[22\]](#) The brain's resistance to stress and stress-triggers can also be bolstered through regular exercise, which can make it easier for a person to deal with stressful situations.[\[23\]](#)

FOR PTSD OR TRAUMA

Post-traumatic stress disorder (PTSD) is the stress response of the body and mind to trauma and traumatic situations.[\[28\]](#) It is linked to generalized stress, but the ways in which it manifests are considerably different and harder to predict. Many studies have been conducted into finding effective treatment and coping methods for PTSD patients, including those in the military.[\[29\]](#) Those with PTSD may benefit both physically and psychologically from exercise, as the traumatic event that induced the condition may have had physical effects to their body.[\[30\]](#) Exercise can help a person's nervous system acclimate to everyday movement and activities, which can lessen the physical response of PTSD. In moderation, exercise can help reduce the tension that PTSD builds up in the body and give the person a safe way of releasing it.[\[31\]](#) As a coping method for PTSD triggers, exercise can be a far safer and less-destructive option that can steer patients away from using alcohol or drugs to cope.

ADDRESSING OBSTACLES

For some, exercise is not a simple task that can be done on a whim. There are several barriers that may prevent a person from being able to regularly exercise, regardless of what their motivations for exercising are. Some of the barriers a person who is exercising to improve their mental health might face involves their own disbelief over the potential benefits. For others, it may be their current mental health state, which can provide a significant obstacle for any task designed to improve it. Finding a solution to these obstacles is contingent on effectively addressing and identifying them.

The Impact of Existing Issues

It is not uncommon for an existing condition to impact a person's ability to do something. This can apply to both physical and psychological conditions, and their effects can be both physical and psychological as well. Certain exercises can be hindered by a person's physical (in)ability to do them correctly or efficiently. Damage from an injury may impede a person's range of motion, which may make it harder for them to do an activity like yoga. A person may not have the physical strength or stamina to do time-consuming activities as directed. Cognitive conditions like ADHD may make it difficult for a person to focus on a physical activity, especially when they are first learning how to do it. Overcoming obstacles linked to a person's existing issues may require adjustments being made to an activity or exercise plan based on any limitations. It may also require the person to try and work their way through in an attempt to overcome through sheer force of will.

Discouragement

It is very easy for a person to discourage themselves from doing something based on their understanding of the activity. One of the most common barriers that stops people from exercising is that they can't do it due to things like laziness or inability.^[34] Past experiences with exercise or a specific activity may also discourage a person from engaging in them, especially if it is not associated as a good memory to begin with. Some mental health conditions, like depression and anxiety, often make a person believe that they are unable or incapable of doing things as well as others. Discouragement can often be canceled out with the help of counterargument and reward.^[35] Simple solutions, like setting small rewards at the end of a routine, can work best to overcome discouragement.



Time Constraints

While it's true that exercise does have some time-based requirements, it should not be a deal breaker. Physical activity can be customized to better fit into a person's schedule without forcing them to compromise other activities.^[36] Time-slots of 30 minutes for aerobic exercises or 10-minute walks after work can be easily slipped into a person's routine. Finding the appropriate openings for exercise requires a person to look at what they already do on a daily basis. It isn't necessary for a beginner to exercise every day for several hours; alternating

days of activity and rest can prove to be a more beneficial routine. However, it should be consistent in order to develop it into habitual practice, i.e. an activity should be done for the same amount of time as it was done previously.



Lack of Motivation

Many cases where a person cited a lack of motivation as a reason for not doing something, it was often because they did not have the energy nor the interest in doing it at that moment. This can be remedied by the person adjusting their exercise schedule.^[37] Some people naturally have more energy at certain points throughout the day. There may also be activities of interest to them that are scheduled at center during certain times other than when they are exercising. Making some of these modifications can help a person find their motivation and set a goal. Goals are, typically, a major source of motivation that has proven to be effective for exercise and physical activity. When used properly, goals can provide a person with a clear and concise reason for doing and completing a task. Note that any exercise goals should be kept realistic and manageable to ensure that they can actually be attained.



Impact of Obligations

Obligations to others can impact aspects of exercise such as when a person can do it. These responsibilities are often things that cannot be put second to an exercise routine, especially when they involve commitments to other people.^[38] This may present constraints that limit what activities can be done and when a person is able to do them. While possible solutions to this barrier may involve those applicable to barriers of time, there is the additional issue of unplanned obligations. Many family obligations that a person has are contingent on certain events, even those that are considered to be emergencies. Such instances pose an entirely different set of problems and can make it difficult for a person to prepare for. In the event of such an instance, it may be best

for a person to make temporary adjustments to their exercise schedule or even take a short break from it until things settle down.

Lack of Resources

Many people find that a lack of usable resources to be an effective obstacle for any task. With exercise, this often is applied to equipment and gyms that a person may not have access to. Due to aspects such as finances and location, these resources may be difficult to obtain. However, the absence of these things does not mean a person cannot exercise. Not all physical activities require specialized equipment, and in some cases all a person needs is themselves. Free tutorials for at-home workouts can be found online through a simple search. Some household items can be substituted for weights, like canned goods or water bottles. Overcoming a lack of exercise resources as an obstacle may simply require a little bit of creativity and repurposing of current resources unrelated to exercise.

WHAT TO DO BEFORE GETTING STARTED

The decision to begin exercising, regardless of the reasons behind it, is admirable. However, it is not something that can be done without any kind of precautions or preparatory measures. Those who do are not regularly active or who have not exercised on a regular basis before may find it difficult to get started exercising. The actions taken before a person first steps foot in a gym or on a piece of exercise equipment can not only help them find their start point, but ensure their desired outcome.

For those who are considering exercising to help with their mental health, it is best to do some of the following first:

SPEAK WITH A DOCTOR

While the intent of a person's exercise routine may be to bolster their mental health, they must also keep their physical health in mind. Aspects of a person's physical health can impact what they can and cannot do when it comes to exercise.^[39] Someone who has asthma or another condition that prompts breathing difficulties, for example, may need to consider trying activities that are not overly-strenuous on the lungs. A person who is unsure of what impact their physical health may have on an exercise routine should ask at their next physical exam. Many medications, including those used to treat mental health conditions, have side effects that can impact physical activity. Such information can be obtained from the physician or therapist who originally prescribed the medication. Specialists, like physical therapists and psychiatrists, can also be consulted to help a person create an exercise regime tailored to their goals or needs.^[40]

Exercise is not limited to gym equipment, but can extend to a wide range of physical activities. Even at the gym, exercise isn't necessarily limited to running on a treadmill or lifting weights. A person who is considering exercising to benefit their mental health may have more options than they initially realized! Sports are often the first non-traditional exercise option that many people think off; there are several options available and participants do not have to play with the aptitude of professional athletes. Exercise also is not isolated to a specific type of facility or location, which opens a person's options even further.[\[41\]](#) With the right resources, a person can exercise in the comfort of their own home without much difficulty. This can be a viable option for those who may be uncomfortable in a group setting, have time constraints, or who have financial restrictions. An expensive gym or club membership, or activities that require fees, may not be an option for anyone who is budget-conscious. For those individuals, free or low-cost activities like walking or using local park equipment may be a better choice.[\[42\]](#)

CONSIDER PHYSICAL ABILITIES

Not all physical restrictions are diagnosed at the doctor's office. Many people are aware of what they are physically capable of; they know their strengths and weaknesses, and are able to recognize when they've reached their limit. The information gathered from a doctor's visit can add to or confirm information a person already knows about their physical abilities. Many activities require a certain level of stamina and physical strength; information on a person's physical abilities can help them determine if they would be able to include an activity in their exercise regime. It can also be used to tell someone if they are doing an exercise that is outside of their skill range or are doing something at a proficiency they are not yet ready for. This can help prevent things like injuries that can present obstacles to the person's exercise goals.

FIND AVAILABLE RESOURCES

Exercise does require some resources in order for it to be done. This can be in forms like equipment and facilities; even an activity as simple as walking requires appropriate footwear and a place to do so undisturbed. These resources are designed to allow the activity to be done as safely and correctly as possible. Exercise resources can also be anything that assists a person in the execution of an activity, but isn't a requirement for it. Class instructors and fitness trainers, while a welcomed addition to any kind of exercise, are not always necessary for a person to do that activity. Some specializations for exercise equipment may be considered unnecessary if they are intended for someone who is a professional or expert rather than a beginner. It is best to determine what resources a person has and what resources they need before they actually begin exercising. Doing so can help save some time and money for the person, as well as help prevent them from being discouraged or using a lack of resources as an excuse to not exercise for their mental health.

PLAN A ROUTINE

Exercise works best when it is done with some level of consistency, hence why it is often referred to as a “routine.” The establishment of a good routine often becomes habitual and makes it easier for a person to stick to it. Planning an exercise routine requires choosing activities, the duration of each activity, and when and where the person will do their routine. Scheduling is important; if a person doesn’t have time to do something, they will put it off until later or choose to not do it outright. The location where the activity is done, like a gym or park, may have set hours of operation. An activity itself may require a set amount of time for it to be done efficiently. A routine should be flexible, and open to modification or adjustment. In their exercise routine, a person should consider including alternative activities in the even that they need a substitute. Outdoor activities may be affected by things like the weather, so a back-up can help prevent a person’s routine from being disrupted. After a while, an activity can become monotonous or lose its effectiveness for the person. In those instances, a new option may be necessary for the person to continue benefitting from their exercise and to continue their progress towards their intended goals.

EXERCISES TO TRY

Exercising for mental health does not need to be overly complicated. Most activities can be applied for all kinds of psychological conditions and customized based on a person’s interests and abilities. What activities a person chooses is entirely up to them, but the abundance to choose from can be overwhelming. Here are a few activities that are flexible enough for people of any proficiency to use to improve their mental health.



RUNNING AND WALKING

Rather straight forward, running and walking are widely considered to be one of the best exercises a person can use to help their general health.[\[43\]](#) Several studies have found that, when done regularly, activities like running and walking can have an antidepressant-like effect on a person’s mental state.[\[44\]](#) Setting aside 5-15 minutes a

day to walk or run may be enough to generate any effect, but a person can adjust to fit their preferences or schedule.

Limitations / Equipment

Most limitations for running and walking are going to involve weather and physical ability. Injuries to the knee, ankle, and hip can make running uncomfortable and those who have respiratory problems may not be able to safely run. Walking or running outside is going to depend on weather conditions, including rain and temperature. Outdoor activities of any kind, including exercise, should be limited during heat advisories where dangerously high temperatures are reported.[\[45\]](#)

Acceptable equipment for running and walking includes comfortable clothing—preferably loose to allow for movement—and appropriate footwear. Use of a gym or treadmill is optional, as a person simply needs an unobstructed path for this activity.

SWIMMING

Swimming is a rather flexible activity that can be used for both serious exercise and entertainment. The water's buoyancy helps those with physical pain or balance issues by supporting them, easing some of the stress exercising places on a person's body.[\[46\]](#) It does require more time and preparation, so anyone who considers using swimming to boost their mental health should plan accordingly. Those who swim at a facility should follow any and all rules to ensure their safety and the safety of others.[\[47\]](#)

Limitations / Equipment

Swimming doesn't work without water. A pool or natural body of water should be large enough and deep enough to allow the person to swim unhindered. Many swimming facilities will have designated times for age groups and activities, like lap swim. Usage of these facilities may require a membership fee, and upkeep of a personal pool will have some costs.

Proper swim attitude like a swimsuit, at minimum. Usage of additional items like goggles or a swim cap are up to personal preference. The pool, public or private, should be well-maintained.

HIKING

Hiking combines the benefits of walking with the benefits of being surrounded by the calming effects of nature. Natural environments have been documented as lowering stress hormones and calming a person's mental state.[\[48\]](#) This may simply be due to the cleaner air and higher levels of oxygen produced by plants, or the tranquility associated with these environments. Hiking may also be used as a more rigorous version of walking

Limitations / Equipment

A person may have trouble finding the proper hiking environment in their area that matches their experience level. The availability of many designated hiking trails may be dependent on weather and the season—usage in winter is either restricted or designated for skiing or snowshoeing.

Sturdy, durable shoes or boots—something that is going to be able to handle the terrain. A person may want to bring along a map of the trails they will be using or seek out the assistance of an experienced guide.



YOGA

Yoga presents many benefits to users on mental, physical, and spiritual levels. It's usage as a complementary treatment for conditions like depression has prompted research into its benefits for mental health.[\[49\]](#) It can be a little more difficult to do; proper execution requires some level of instruction for each pose. However, yoga's popularity has increased the availability of instructional materials and other resources.

Limitations / Equipment

A person's flexibility and balance are going to be the primary limits, as those are requirements for many of the moves. Material appropriate to a person's skill level may also be difficult to find.

A flat surface and a yoga mat—a long towel can be used as an alternative. Instruction can be in the form of a class (free or paid), or through media tutorials found in books, dvds, or online videos. Users should wear loose, comfortable clothing that allows for easy movement.

THINGS TO KEEP IN MIND

Exercise is not a perfect solution to a person's mental health issues. It should not be used as the primary treatment for a condition, but for supplementary or preventative purposes.^[50] In order for a person to truly give themselves the best chance of reaping as many benefits of exercise for their mental health, there are a few things they need to remember.

SPEAK WITH A DOCTOR

While some of the mental benefits of exercise, like improvements in mood, are going to develop quickly, this is not going to be the case for all benefits. Users are not going to see immediate or outstanding improvement in their mental health after taking a single walk around the block; it may take several weeks for there to be any long-lasting effect. While this may discourage some from exercising, it should not be used as an excuse by all to not exercise to improve mental health. If a person is unsure if they will be able to commit without regular signs of progress, a rewards system may be applicable.^[51] Rewards can be used to help keep a person motivated and can be specialized to the activity or the person's interests.

LIMITATIONS

Limits are there for a reason and often they can be used to help prevent a person from injuring themselves or others.^[52] Anyone who is planning on exercising or engaging in physical activity should be able to recognize when they've reached their limit. Bypassing those limitations may occur, but it will be gradual; trying to overcome a limitation can backfire and may cause inadvertent harm.

COMFORT ZONE

Exercise isn't universally enjoyed, and the same can be applied to many physical activities. When deciding on an activity or routine, a person should consider what they are comfortable doing. They can try something new to see if they like it, but it is okay for them to pass on something that they do not enjoy or are uncomfortable doing.

[1] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1402378/>

[2] <https://www.nhlbi.nih.gov/health/health-topics/topics/phvs/benefits>

[3] http://www.heart.org/HEARTORG/HealthyLiving/PhysicalActivity/FitnessBasics/American-Heart-Association-Recommendations-for-Physical-Activity-in-Adults_UCM_307976_Article.jsp#.WKdAuFUrLIU

[4] <https://www.cdc.gov/physicalactivity/basics/pa-health/>

[5] <http://www.apa.org/monitor/2011/12/exercise.aspx>

[6] <https://www.ncbi.nlm.nih.gov/pubmed/22750524>

[7] <https://www.ncbi.nlm.nih.gov/pubmed/22698691>

[8] <https://www.ncbi.nlm.nih.gov/pubmed/21722657>

[9] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2562306/>

[10] http://www.heart.org/HEARTORG/HealthyLiving/PhysicalActivity/StartWalking/Physical-activity-improves-quality-of-life_UCM_307977_Article.jsp#.WKdAi1UrLIW

[11] <https://www.cancer.gov/about-cancer/causes-prevention/risk/obesity/physical-activity-fact-sheet>

[12] <https://www.cdc.gov/diabetes/managing/beactive.html>

[13] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1470658/>

[14] <https://www.adaa.org/understanding-anxiety>

[15] <http://www.apa.org/monitor/2011/12/exercise.aspx>

[16] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632802/>

[17] <https://www.adaa.org/living-with-anxiety/managing-anxiety/exercise-stress-and-anxiety>

[18] <https://www.adaa.org/tips-manage-anxiety-and-stress>

[19] <https://www.adaa.org/understanding-anxiety/related-illnesses/other-related-conditions/stress/physical-activity-reduces-st>

[20] <http://www.apa.org/news/press/releases/stress/2013/exercise.aspx>

[21] <http://www.health.harvard.edu/staying-healthy/exercising-to-relax>

[22] <http://dujs.dartmouth.edu/2011/02/the-physiology-of-stress-cortisol-and-the-hypothalamic-pituitary-adrenal-axis#.WKdmvFUrLIU>

- [23] <http://www.apa.org/helpcenter/exercise-stress.aspx>
- [24] <https://www.adaa.org/understanding-anxiety/depression#Depression>
- [25] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC474733/>
- [26] <http://news.rutgers.edu/research-news/exercise-and-meditation-%E2%80%93-together-%E2%80%93-help-beat-depression-rutgers-study-finds/20160209#.WKdg8VUrLIU>
- [27] <https://www.cdc.gov/nchs/data/databriefs/db172.pdf>
- [28] <https://www.cdc.gov/masstrauma/factsheets/public/coping.pdf>
- [29] <https://www.ncbi.nlm.nih.gov/pubmed/27612337>
- [30] <https://www.adaa.org/understanding-anxiety/posttraumatic-stress-disorder-ptsd>
- [31] <http://www.ptsd.va.gov/public/treatment/cope/coping-ptsd-lifestyle-changes.asp>
- [32] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3724411/>
- [33] http://www.chadd.org/AttentionPDFs/ATTN_06_12_Exercise.pdf
- [34] <http://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/fitness/art-20045099>
- [35] <http://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/fitness/art-20045099?pg=2>
- [36] <https://www.cdc.gov/physicalactivity/basics/adding-pa/barriers.html>
- [37] http://www.heart.org/HEARTORG/HealthyLiving/PhysicalActivity/StayingMotivatedforFitness/Breaking-Down-Barriers-to-Fitness_UCM_462208_Article.jsp#.WKdxa1UrLIU
- [38] http://www.heart.org/HEARTORG/HealthyLiving/HealthyKids/HowtoMakeaHealthyHome/6-Simple-Steps-for-Your-Whole-Family-to-be-Heart-Healthy_UCM_460227_Article.jsp#.WKd_bFUrLIU
- [39] <http://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/exercise/art-20047414>
- [40] <http://www.health.harvard.edu/healthbeat/do-you-need-to-see-a-doctor-before-starting-your-exercise-program>
- [41] http://orthoinfo.aaos.org/topic.cfm?topic=A00416&return_link=0

[42] <https://medlineplus.gov/ency/patientinstructions/000762.htm>

[43] <http://www.health.harvard.edu/blog/running-health-even-little-bit-good-little-probably-better-201407307310>

[44] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1413959/>

[45] <http://www.nws.noaa.gov/om/heat/ww.shtml>

[46] <http://www.health.harvard.edu/staying-healthy/5-of-the-best-exercises-you-can-ever-do>

[47] <http://www.redcross.org/get-help/prepare-for-emergencies/types-of-emergencies/water-safety/swim-safety>

[48] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2793341/>

[49] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2176141/>

[50] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3068720/>

[51] <https://www.hsph.harvard.edu/nutritionsource/2013/11/04/making-exercise-a-daily-habit-10-tips/>

[52] <http://www.health.harvard.edu/healthbeat/10-tips-for-exercising-safely>