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# The Effects of the Alexander Technique on the Performance of Music Students

Heather Amos

Eastern Kentucky University, [heather\\_amos@mymail.eku.edu](mailto:heather_amos@mymail.eku.edu)

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EASTERN KENTUCKY UNIVERSITY

The Effects of the Alexander Technique on the Performance of Music Students

Honors Thesis  
Submitted  
in Partial Fulfillment  
of the  
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By Heather Amos

Mentor

Dr. Karin Sehmman

Associate Dean of Arts and Sciences

# The Effects of the Alexander Technique on the Performance of Music Students

Heather Amos

Mentor Dr. Karin Sehmman Associate Dean of Arts and Sciences

This honors thesis paper looks into the injuries commonly experienced by musicians and how the addition of the Alexander Technique affects both the injury and the performance of the musician. The purpose of this research was to attempt to find a solution to the pain musicians suffer from Repetitive Strain Injuries through either a treatment or prevention process of using the Alexander Technique. Throughout the research, the main questions that guided the findings were: what is causing the injuries many musicians seem to develop, what are the current uses of the Alexander Technique, has anyone experimented with using the Alexander Technique as a treatment for injuries, and what are the possible benefits of incorporating the Alexander Technique in musicians' routine starting at an earlier age. After much research, the findings in this honors project show that the main type of injury experienced by many musicians is called Repetitive Strain Injury, the Alexander Technique is used to treat the pain experienced by these and other injuries, and the Alexander Technique is a could potentially prevent the continuation of these injuries. Putting the findings from this thesis into practice could mean relieved pain for many musicians and fewer musicians being diagnosed with Repetitive Strain Injuries.

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## INTRODUCTION

Every year, more and more musicians are diagnosed with some form of Repetitive Strain Injury. Repetitive Strain Injuries are the result of misuse of the body for a prolonged period of time or repeated specific motion misuse over the course of many years. Types of misuse that can result in these Repetitive Strain Injuries include poor posture, tension, or fast repetitive motions. Repetitive Strain Injuries can take form in many different diagnoses including tendinitis, carpal tunnel, temporomandibular disorder, etc.

To date, a reported 64% of professional musicians claim to suffer from some type of Repetitive Strain injury (Mitchell, 2005, pg.1). This survey was conducted on professional orchestral musicians only. Because of this, the data does not accurately portray just how many musicians actually suffer from Repetitive Strain Injuries. The survey does not include professional musicians who have had to quit performing due to pain experienced while playing due to Repetitive Strain Injuries, musicians who suffer from this pain but have not yet gotten diagnosed, or students who could either already

have obtained these injuries or could still be developing them. With this many musicians not included in the survey, it can only be presumed that the actual number of musicians who suffer from these types of injuries is much greater than already feared.

According to modern science and medicine, there is no cure to these injuries. Treatments are available and can help relieve the symptoms, but they can be very expensive or even include surgery and once the patient goes off the treatment the symptoms come back. This type of thinking and treatment of symptoms is what first led to the discovery and creation of the Alexander Technique. Taking classes in Alexander Technique with a professional instructor and then incorporating the exercises into these people's daily lives can be a self-monitored permanent cure to these injuries.

## HISTORY OF THE ALEXANDER TECHNIQUE

Frederick Matthias Alexander created the Alexander Technique. Alexander was born on January 20, 1869 in Wynyard, Australia. His first job was as a clerk at the Mount Bischoff mine, but even as a child, he felt a calling for theatre with Shakespeare as his inspiration so he pursued the hobby of reciting ballads to the miners he worked with. Upon quitting his job in the mine, Alexander moved to Melbourne, Australia to study acting and by age 19 he was already known as a reputable recitationist and actor. By the time he turned 23 years old, he was performing regularly and traveled to different cities in Australia. Not long after he began performing regularly, Alexander noticed pain in his throat while performing. Though he initially ignored this, it only continued to get worse. Eventually, it got to the point that he lost his voice during a major performance. This was what finally pushed him to consult a doctor. His diagnosis turned out to be laryngitis.

Laryngitis is inflammation of your larynx from overuse, irritation or infection. This condition causes the vocal chords to swell, which in turn causes air to pass over them, making the voice sound hoarse. Laryngitis may be acute or chronic and can be caused by a virus or misuse of the voice. Common symptoms of laryngitis include hoarseness or loss of voice, sore throat, dry or raw throat, or a dry cough. More severe symptoms of laryngitis include trouble breathing, coughing up blood, persistent fever, increasing pain, and trouble swallowing. Due to the prolonged period of time during



which Alexander experienced the pain in his throat, he would have been diagnosed with chronic laryngitis.

Though the doctors were able to diagnose him, the medicine and medical procedures available at the time were unable to cure him. This greatly hindered his ability to perform, and the doctors even suggested that he quit performing in order for his larynx to have time to heal. Instead of giving up on his dream, he sought out advice from fellow actors. When nothing they suggested cured his laryngitis, he looked for solutions of his own.

Alexander began observing his rehearsals to see if he could find out what was causing his pain. During each rehearsal, he set up mirrors all the way around him so that he could see every angle of his body. After close observation, he found out that his problem was due to stress and tension on his neck. He continued these observation rehearsals in order to find the source of the tension rather than just assume his neck being tensed was the only culprit. The main thing that Alexander noticed effected his tension in his throat was actually his overall posture. While rehearsing, Alexander noticed that he often moved his head too far back, causing an unnatural curve in both his back and his neck. This bend placed extra pressure on his throat and closed off some of his air, forcing him to push more while performing in order to get a broad, projecting voice. Once he identified this error in his posture, Alexander practiced lifting his head forward and up while rehearsing. This took the curve out of his back and neck, opened

his throat, allowed him to not have to push as much, and therefore relieved some of the pressure on his throat.

Though this change in his posture helped during rehearsals, it did not completely relieve his pain. After noticing this, Alexander began observing his habits during regular speech and noticed that the same poor posture habits he had detected during rehearsals was carried over into his daily life as well. With this discovery, Alexander deciphered that the root of his pain was not only in how he performed, but also in his posture in general. By consciously adjusting his everyday posture, Alexander was able to relieve himself of the pain caused by his laryngitis. These findings over time improved Alexander's health so much that it was requested that he teach his findings to others.

Colleagues of Alexander requested he share his techniques so that they too could continue performing. Mr. Alexander began teaching by age 30. In the beginning of his teaching career, he taught mainly proper breathing, vocal production, and the importance of proper posture to physical, emotional, and spiritual health (Roe).

During his time teaching, growing, and adapting his technique, he discovered something he named Primary Control. Primary Control is where you have your body in exactly the correct alignment. Alexander found that if the body is in exactly the correct alignment, your muscles are able to relax and you will have optimal control over your muscles. It is called "Primary" Control because he believed that the alignment of the head, neck, and back was the primary influence on the coordination of our whole body

system and all of our movements (King). Alexander discovered that when he was able to use correct posture and completely relax his neck muscles by letting his head balance freely, his throat opened up and he had greater control over his larynx and his voice. This improved his vocal quality and relieved his pain while speaking and performing. He once stated, “that to lengthen I must put my head forward and up. As is shown.... this proved to be the primary control of my use in all my activities” (King, 2005). With practice, this same control was transferred to all of his movements; thus began what is now known as the Alexander Technique.

Not only did the creation of the Alexander Technique have a huge impact on the world of medicine as far as treating chronic pain, but it also started the physical culture movement. Alexander was a pioneer physical culturist. Physical culture was a health and strength training movement that originated in 19<sup>th</sup> century England, Germany, and the United States. The Alexander Technique fit right in with this popular movement of the time because it also focused on the body and how to strengthen and use it the correct way using proper posture and movements. Though the Alexander Technique dealt mostly with movement and posture and not as much on building muscular strength, Alexander was and is still considered a physical culturist and made many important contributions to the movement during his lifetime.

After years of studying the body, how it moves, and sources of tension and pain in it, Alexander began to believe that the main cause of pain in the neck and back was our modern way of life. Society is ever changing. This means that we as humans must

adapt our actions to meet the demands of our societies. Alexander discovered that getting back to our instinctual behaviors that are very simple and relaxed is the best way to maximize output with minimal effort and without pain. Though following instinct is the best path for our bodies' health, we are unable to do this because we are constantly adapting. Alexander expanded this belief to encompass that our intellect has evolved faster than our bodies. Because of this, there is a miscommunication between the brain and the body that causes us to develop poor habits and posture.

One example of how modern society has caused more people to experience neck and back pain is the expansion of technology. Originally, humans were outside and on their feet all day. Now, many people spend their days sitting at a desk typing on a computer or staring down at their phone. Rarely do people ever do either of these things while constantly making sure they sit with good posture. Instead, the head tends to bend down to look at the screen or the keyboard that causes the neck and back to curve unnaturally due to its weight. This curve puts pressure on the lower back, causes the shoulders to collapse in, making it harder to take relaxed, deep breaths, and causes pain in the neck from the tension caused by holding it in this curve.

For over 50 years, Alexander taught and refined his technique. Over 35 of those years were spent teaching pupils, while the remaining years were spent educating others on how to teach the next generation what he had learned throughout his lifetime (Chance). During his time teaching pupils the Alexander Technique, he got to see the

amazing benefits people experienced from his technique. Seeing how impactful his teachings were both on people and their careers encouraged him to want his findings to continue to be shared after he was gone. The two educators that had the most impact on the Alexander Technique after Frederick Alexander passed away were Marjorie Barstow and Walter Carrington, both of whom were first generation instructors of the Alexander Technique and who went on to teach many others to become instructors as well.

Marjorie Barstow was the first person to ever graduate from the three-year education course given by Alexander himself. Barstow taught this technique for over 60 years. Unlike Alexander who saw the need to treat the root cause of the pain, but focused mainly on the performance ability, Barstow focused on movement and how to use the Alexander Technique to enhance peoples' ability to perform tasks in their daily lives.

Carrington also taught for over 60 years. He grew the practice in Britain and focused on educating the next generation of Alexander Technique instructors. Carrington did this by teaching the Alexander teacher training course and later publishing a book titled A Time to Remember: A Personal Diary of Teaching the F. M. Alexander Technique in 1946 and creating a lecture series titled "Thinking Aloud" and "The Act of Living" in which he details the art of proper breathing, balance of the head, the effects of gravity on the body, habitual behaviors, and ethics which provides detailed insights into Alexander's methods (Walter, 2002).

## INSIDE AN ALEXANDER CLASS

During an Alexander class, the teacher spends most of their time observing the pupil. They may do this by simply watching and taking note of the posture and movements of the pupil. During this type of observation, the instructor specifically is looking for visibly tensed muscles, poor posture including leaning too far forward or back, an over arched back, or the head not being placed directly over the shoulders, or misuse of the body through rigid or poorly executed movements.

Another way that most Alexander instructors “observe” what their pupil’s bodies are doing is by placing their hands on the pupil’s neck, shoulders, back, stomach, etc. in order to feel for tension or breathing patterns. This may be done while the pupil is performing a skill (such as singing, playing an instrument, reciting, etc.) or doing a simple task such as walking, sitting down, or getting up from a chair. Having their hands placed on the pupil during these movements allows the instructor to feel small movements and tensing of muscles happening during the overall movement that are not visible to the eye. This type of observation also allows the instructor to help guide the pupil to make the correct movement while they are still performing the desired skill. Simple ways for the instructor to guide the pupil are through things such as with a gentle push or lifting or supporting a part of the body.

Adjustments may also be made to a pupil by changing not their body directly, but their environment. For example, if a musician is sitting in a chair to rehearse and

their back is causing them pain due to tension from arching, the instructor may see fit to put elevators under the back legs of the chair. This would change the angle at which they are sitting and the distance from the front of the chair to the floor. This change allows the pupil to have more support in their legs instead of their back and the increased angle releases the tension in the back by forcing them to curve the spine back to its natural shape.

Alexander lessons are relatively short. The average private Alexander Technique class lasts only 30 to 45 minutes. This is just an average so some classes may be longer or shorter depending on the instructor, their teaching style, and how quickly the pupil is able to progress. These classes may also be taken in a group instead of individually. Group lessons typically last longer than private classes, but each individual does not get as much one-on-one attention from the instructor.

It is recommended that students take between 20-40 lessons in order to treat their injuries. Some people will take closer to 20 lessons if they are only experiencing minor injuries or pains. Those with more severe or complex injuries take around 40 or so classes. These lessons would take place over the course of a few months, then the pupil will either be done with the program or requested to come back for group or refresher classes. When a student first begins these classes, they are likely to start out going about twice a week or more. The classes slowly space out of the course of the few months to where the pupil may only take one class every other week or so.

During all Alexander Technique classes, there are three basic steps that everyone follows. These steps are: awareness of the habit, inhibition, and conscious control. The first step, awareness of the habit, is where the instructor searches for the source of the pain. Though the pupil may report feeling pain while playing their instrument, the source of this pain may be from how they sit or stand at work all day. Because of this, any Alexander Technique treatments will not be fully effective and any pain experienced will return outside of classes if you just treat the obvious problem instead of the root of the problem. During this step is when the instructor does the majority of their observations to identify if the original issue is poor posture, misuse of the body, improper movements, tension, etc. This initial step dates back to when Frederick Alexander first observed himself during rehearsals with a set of mirrors, looking for any misuses of his body.

The second step to any Alexander Technique class is inhibition. Before inhibition may begin, the instructor must have completed the previous step and know exactly what the habitual behavior is that is causing the pupil to experience pain. Next, the instructor explains to the pupil what the unhealthy behavior is. In order to inhibit this unhealthy behavior, the pupil must consciously decide not to repeat it. This means that every single time the pupil is in a situation in which they would normally perform the unhealthy behavior, they must stop and remind themselves of what they are not supposed to do.



Once the instructor and pupil have identified the unhealthy behavior that they wish to inhibit, the instructor must create a new, healthy habit to replace it. This new habit will be one that uses correct posture, no unnecessary tension, and smooth movements in order to minimize any pain that is normally felt. The first step to finding the new, healthy habit is to realign the posture starting with the head, then working your way down to the neck, then the back, etc. When the positive behavior has been taught, the pupil must then make a conscious effort to perform that new behavior in place of the old one every single time. Throughout this process, the instructor assists the pupil in unlearning a habit that was formed and repeated for perhaps many years and replaces it with a new behavior that they must make into a habit so that it will always be repeated in the given situation.

Having to unlearn and relearn something you have done for years is a long, tedious process so that is why it is recommended to take at least 20 classes. At the end of these 20-40 classes, the body has securely learned the new habit so that the pupil no longer has to consciously remind themselves to perform it; it just happens naturally.

The more the pupil is able to hold themselves accountable outside of class to inhibit the old behavior and consciously control their muscles to perform the new one, the sooner they can expect to experience permanent relief and see improvement in their posture. Once the instructor has identified a positive new habit and has taught this to the pupil, results and pain relief are immediate while in the class. It is when the pupil is at home, away from the instructor, that pain can come back if they do not consciously

remind themselves to perform the new behavior every single time. After completing the 20-40 classes, sometimes the pupil must come back for a refresher class because they quit taking classes before the new habit was truly instilled and they need the instructor to assist them in relearning it because they are unable to do so at home.

## USES OF THE ALEXANDER TECHNIQUE

The Alexander Technique can be used for many purposes. The broadest categories that this technique can be used to correct are unhealthy habits during daily tasks or learned skills. Anyone and everyone can benefit from using Alexander Techniques during their daily lives. Incorporating this would relieve many people's back pain, improve overall posture, help people feel more relaxed, and open the chest in order to breathe fuller and deeper.

There are also specific types of people who often use the Alexander Technique. One such group is Olympic athletes. Some Olympic athletes incorporate this technique into their training routine. This allows them to keep their muscles as relaxed as possible. Benefits from this include a decreased rate on injury and a higher performance level because of maximum control over the body due to primary control. Another group of people who benefit from this technique in very similar ways as the athletes is pregnant women. These ladies use Alexander Technique to help relax their muscles and to help manage both stress and pain.

A disease that patients have reported improvements from because of learning the Alexander Technique is Parkinson's disease. This disease attacks a person's muscles and over time makes them weaker and weaker and the patient gradually loses control over all of their muscles. Parkinson's patients usually go through regular physical therapy. This is the perfect place for doctors and instructors to incorporate the

technique. As stated previously, the Alexander Technique allows the muscles to free up and be tensionless. Without the rigidity of tense muscles, the body can move more easily and therefore Parkinson's patients can move their muscles more than previously possible, with less effort.

Much like Frederick Alexander did for himself, people who go through speech therapy benefit from incorporating the Alexander Technique in their therapy. Just as with Alexander, when the vocal chords become strained from over or improper use, taking the time to relearn how to properly use them without any added strain can improve the ease of the voice and vocal quality. Also, improving posture and striving for primary control allows the throat to relax, the lungs and chest to take a relaxed, deep breath for proper air support in order for ease of vocal production with little to no pain.

Though there are many more groups of people who could and do benefit from taking classes on the Alexander Technique, the last one to be mentioned in this paper is people in the arts. This includes those from all forms of the arts: actors, singers, artists, dancers, musicians, etc. Many musicians all tend to get the same injury at some point in their career which causes them to experience pain while performing or even during their daily lives as well. This injury is called Repetitive Strain Injury. Repetitive Strain injuries are the leading cause for musicians to take classes in Alexander Technique.

## ALEXANDER TECHNIQUE FOR MUSICIANS

As mentioned before, the leading reason musicians take classes in the Alexander Technique is the development of a Repetitive Strain injury. This type of injury is caused either by misusing your body, having prolonged muscle tension, using poor posture for extended periods of time, or fast repetitive movements. Some examples of Repetitive Strain Injuries are tendinitis, carpal tunnel, and temporomandibular disorder (TMJ).

Musicians who are not carefully taught proper technique will experience most if not all of these during their career. For example, if you are not taught how to properly stand, hold your instrument, and use your body (such as your fingers or arms) while playing, you are likely to cause yourself to hold poor posture or misuse your body every single time you play. This only harms your body more and more as time passes. Another way musicians form Repetitive Strain Injuries is by having too much tension in their muscles and on their joints. Musicians often live very busy lives and have heavy demands set on them in order to perform their best. This can lead to stress that translates in the body to tension. Holding this tension while playing and performing daily tasks can also cause Repetitive Strain Injuries. Other things that can cause Repetitive Stress Injuries in musicians specifically include sitting or standing with improper posture while playing or moving the fingers quickly up and down, over and over throughout rehearsals.

Sadly, many musicians are diagnosed with a Repetitive Stress Injury at some point in their career. Studies show that between 64-76% of professional orchestral musicians report experiencing Repetitive Strain Injuries from performing (Culf, 1998). This is a large majority of musicians and it does not even account for all of them. The studies were only based on answers given by professional musicians who are part of a symphony orchestra. This means that the data does not account for musicians who are no longer performing because their injuries were too painful, vocalists, soloists, pianists, musicians in a wind ensemble, those who have not yet been diagnosed, or students who are still learning and practicing the bad habits which will eventually lead to a Repetitive Strain Injury if it has not already; if these musicians were included in the study the total number with a Repetitive Strain Injury would be much higher.

Out of those who have reported suffering from a Repetitive Strain Injury, one-third have had to quit performing because they experienced too much pain and either chose or were told by doctors that they needed to do so. For musicians, suddenly not being able to perform for any reason means that you are now unemployed and without any source of income. These musicians remain unemployed for weeks or even months to either go through physical therapy until their injury is healed or to wait for the “okay” from a doctor. Some of these injuries get so bad that the musician must change careers completely because they are no longer physically capable of playing their instrument. The first step to preventing these Repetitive Strain Injuries is to incorporate the Alexander Technique in musicians’ warm-ups.

The most basic way to introduce the Alexander Technique to someone and to have them incorporate it in their daily routine is to start with simple, daily tasks such as sitting, standing, and transitioning between the two. During this, the instructor and pupil must ensure that the posture is correct from the head, to the neck, down the spine, etc. Since the head is the heaviest part of the body, if the pupil keeps it lifted and balanced, this will take much of the tension out of their neck and back muscles.

Once the pupil has learned how to sit, stand, and transition with proper posture, they must practice holding their instrument without tension or changes in their posture. Often times, musicians are not taught how to properly hold their instrument and so they learn improper technique that causes unnecessary strain on their muscles. Ideally, the musician should find their proper posture and simply bring the instrument to them, not move to adjust to their instrument like many do.

After the musician has practiced how to hold their instrument with correct posture and without tension, they can move on to some simple exercises. The first exercise they should practice is simply breathing. Most people breathe from their chest, but this does not allow for full, deep, relaxed breaths. The best breaths are taken from the diaphragm, with the throat open and relaxed. By breathing from the diaphragm, you engage the abdominal muscles that allow you to open and relax your chest. This also allows for better air support and tone quality while performing.

The above exercises prepare the musician to begin playing as relaxed as possible and so the next step in the warm-up is to actually begin playing. Instead of jumping into the pieces they have been working on, musicians should begin slowly, with long tones. They should move their fingers slowly, focusing on keeping the hands as relaxed as possible. Gradually, the musician then speeds up the section they are working on, but only going as fast as they can while still maintaining proper posture and relaxed muscles. Over time, the steps practiced in this Alexander Technique-inspired warm-up become learned habits and the musician will be able to move through it without the aid of an instructor. Every step in this warm-up can be used with any musician with any level of music. This makes this warm-up style adaptable to all ages, even beginners.

In addition to using the Alexander Technique-inspired warm-up, many musicians also take classes from an instructor to help further their progress. For these classes that are aimed specifically towards musicians, the basic concept still applies: proper posture leads to Primal Control which allows for better control over the muscles, relaxation, and pain relief. Besides just looking at posture as a way to relax, musicians also see it as a tool to use to improve their musicality. By opening up the shoulders, musicians are able to get in more air during their breaths that allows for better air support, improved tone quality, and the ability to play longer musical phrases. For string players specifically, this also allows up their bow arm to move more freely which affects their tone quality, technique, and speed. Often times, musicians also work on performance skills during their Alexander Technique classes. Some of the skills they may work on include:



technique, being able to move their fingers faster, removing any pinching or tension in either extremity of their range, increasing their range, and/or pain in their joints (mainly the wrists) from gripping their instrument too hard.

## CONCLUSIONS

Adding practices from the Alexander Technique into daily warm-ups and taking classes to perfect misuse of the body and improper posture is beneficial to musicians who suffer from Repetitive Strain Injuries. During the class, the effects are immediate and pain is instantly relieved, however, until the new behavior is learned into a habit, the effects will not carry over throughout daily life. Studies show that this normally takes about ten classes to begin happening (Valentine, 1995).

Ten classes is the average for the learned habit to carry over into daily life, but 15 classes is the point at which musicians tend to notice improvement in their musicality, technique and pain levels. At this point in the process, there was also less variation in the musicians' heart rate during low-stress performances. This is due to the relaxation of the muscles and refocusing of the mind to aspects of posture causing lowered stress levels. Though this is true for low-stress performances, taking 15 classes does not change the stress levels felt and heart rate variances experienced during high-stress performances.

After 10-15 classes, the results (pain relief, improved musicality, and correct posture) can be permanent, however, this only remains true as long as the new habit that was learned through the Alexander Technique remains in use. Once the pupil reverts back to their old habit(s), the original symptoms will also return. It is not until

the full 20-40 classes have been completed that the chances of this occurring are slim to none.

Long-term results are possible after 20-40 classes. One such result of taking this many Alexander Technique classes over the course of a few months is that you become better able to handle stress. Alexander Technique teaches the user how to relax the body. When a person becomes stressed their muscles tend to tense up. Using what they have learned through the Alexander Technique, they are able to relax their muscles and their bodies when they are in stressful situation. This, in turn, causes the heart rate to decrease and the slow, deep breaths learned in the classes helps to return the breath back to normal as well, thus decreasing the effects of stress on the body and helping the user to calm themselves down.

Other long-term benefits from taking Alexander Technique classes include improved posture and skill enhancement. Posture is the first and main thing addressed in these classes, therefore, over the course of the months that you take them, you are slowly teaching, reinforcing, and practicing using correct posture until it becomes second nature. Correct posture relieves pain in the joints caused by curvature and pressure, thus relieving the musicians' Repetitive Strain Injuries. It also enhances musicians' skills including tone quality, technique, and expression. Using the technique teaches the musician to train their body to relax, and their throat to open up. This allows for deeper, more relaxed breaths that enable the musician to have better air

support for a higher quality tone, longer phrases, and increased range. The combination of these three things allows the musician the freedom to be more expressive.

Based on the studies referenced, it can be concluded that incorporating the Alexander Technique into daily warm-ups can help musicians of all ages improve their skill sets and relieve pain. Also, taking classes with a trained professional is proven to relieve pain experienced due to Repetitive Strain Injuries.

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