

# Protecting Our Young Musicians ...

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**Singing lullabies can help with parent-infant bonding and attachment. Moving to music can help toddlers develop gross motor skills. Music also can help school-aged children with peer relationships and expression with individuals and groups.**

# From Performance Injuries



While musical training of any type has been shown to assist with brain development, it should be carefully encouraged. Young artists face the challenges of “normal growth,” while under the influence of family, music teacher and school.

How early training, practice time and performance habits predispose young performing artists to future good health or medical and career problems is largely unknown. We do know that the cooperation of student, family music teacher and health provider are all needed to promote and maintain the health of future performing artists.

The pediatrician should be aware of the child’s musical aspirations, and take a complete history regarding the family situation, nutritional status, school progress and any discomfort experienced while playing. Hearing and vision screening should be routine along with immunizations and dental screening.

Playing a musical instrument requires rapid and controlled repetitive movements, and is among the hardest activities done with the hands and upper extremity. It requires intense concentration, motivation, discipline and prolonged

solitary practice.

Many artistic children have an intense motivation. Their own dedication to excellence combined with pressure from parents and teachers can lead to overuse injuries and should be recognized by the pediatrician.

Musical training should not preclude the participation in other “normal” childhood activities, however. Yo-Yo Ma, a famous cello prodigy, spent much time and effort “trying to be normal” when he was young.

Overuse injuries occur when biologic tissue is stressed beyond its physical limit, or when insufficient time for recovery is allowed. Symptoms can develop acutely after a prolonged practice session or more commonly occur gradually over time. A “no pain, no gain” approach is inappropriate at any age.

Performance-related medical problems among young performers have been found in all age groups. A study of children ages 10 and 13, who played their instruments an average of 3.4 years, found a 20 percent incidence of a performance-related musculoskeletal problems at the time of the survey, and 33 percent had had a problem at one time.



Other studies have shown that by age 18, at least two-thirds of young musicians had experienced performance related musculoskeletal pain. Musically involved students displayed two to three times more upper-extremity problems than non-music students. Girls had more arm and hand problems than boys, and the piano, violin, cello, clarinet and flute were the instruments associated with the highest injury rate.

Increased practice time and stress associated with competitions, juries and auditions heighten risk of injury. Participation in marching bands may also expand the possible sites of injury to include the lower extremity.

Additionally, summer festival and music camps can lead to injuries due to the increased playing time during these intense events. For example, a student who usually practices one to three hours per day may have to play up to six to eight hours at camp. The desire to get the most out of these brief events with peers and notable teachers, combined with possible new techniques can provoke injuries.

While many of these conditions have been referred to as “repetitive strain disorders,” they are neither inevitable nor progressive. Most musicians can avoid problems with “good” technique, sensible lifestyle and some basic conditioning away from the instrument.

### **Here are few basic guidelines for your children to follow:**

- Any increase in practice time should be accomplished gradually. Adding 10 to 15 minutes to regular practice time every few days is best.
- When possible, keep practice times relatively consistent in amount and time of day.
- Begin each practice session with a 5- to 10-minute warm-up away from the instrument.
- Limit playing to 40 to 45 minutes, followed by a cool-down period. This cycle can be repeated as needed to achieve the desired amount of practice.

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- Any changes in the instrument, such as new strings, or new instrument, should be accompanied by a decrease in practice time to allow muscular accommodation to the new changes.
  - The introduction of a new technique or new piece of music should be accompanied by a decrease in practice time.
  - Take other activities into account. Increased typing or note taking for class assignments, or increased "gaming" should be considered with a corresponding decrease in practice time.

Following the above common sense measures can avoid most problems among serious music students. However, discomfort or pain at any time should be taken seriously. If relative rest and decreased playing do not result in improvement, seek appropriate medical help.

If treatment measures recommended by your regular health provider do not result in improvement, look for a performing arts medicine physician. The Performing Arts Medicine Association (PAMA) at [artsmed.org](http://artsmed.org) maintains a list of members and performing arts medicine clinics throughout the country. ❖

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