

PLAYING STAYING Healthy Healthy

No Pain, All Gain: Strategies For Healthy And Happy Musicians

Making music at any level is a powerful gift, the epitome of precision, coordination, fluency, expression and skill. But with alarming frequency, musicians—amateurs, students and professionals—experience injuries. Problems can occur in players who develop poor habits or postures,

who play too much or who play with excess tension. In the studio and classroom it is essential we teach our students healthy physical and mental approaches to provide a solid base for playing with comfort, freedom and ease of expression.

No artist is immune from pain or injury without injury prevention education and awareness. By instilling self-awareness in our students we help them learn to troubleshoot before a problem might arise.

Repetitive strain injury, or over-use, is a loose term applied to several conditions in which body tissues have been stressed beyond their biological limits. Playing too much, and too intensely, over weeks, months and years can do cumulative damage.

Playing involves an awesome amount of repetition. When poor or awkward postures, excessive force or

tension, and physical and emotional stress are added to the mix, it's a recipe for disaster. After years of wear and tear and insufficient recovery time, we may reach the point at which our tissues become chronically injured to the point of pervasive pain and fatigue.

Repetitive strain injury (RSI) is usually a combination of factors:

**RSI = Force + Tension + Repetition
+ Poor Posture + No Rest**

Stress injuries occur due to highly repetitive tasks. The well-known Chopin *Waltz in D Flat Major Op. 64*, the *Minute Waltz*, is an awesome 688 right-hand notes—12 notes per second, not including the mordents and trills. There are many examples of strenuous techniques on any instrument—leaps involving octaves and chords, rapid repeated octaves or chords, *tremolando*, trills and fast

Janet Horvath, formerly the associate principal cello of the Minnesota Orchestra, is a soloist, writer and an injury prevention advocate. A noted clinician, her book *Playing (Less) Hurt—an Injury Prevention Guide for Musicians*, garners critical acclaim.



broken octave passages, fast-repeated notes, rapid finger work or single-note leaps, long-held notes (loudly or softly) and double stops or double notes. In a young student anything strenuous can be tenuous!

Tension-free Set-up at the instrument is the foundation upon which our students will base all their playing. Aim for neutral or natural positions. Risky postures include:

In shoulders—Holding arms away from the body at or above shoulder level; allowing shoulders to droop or hunch, raising shoulders.

In torsos—Bending or twisting torsos, reaching and/or leaning. Hunched postures result in collapsed chests, which compress organs and the spine, and prevent proper breathing.

In wrists—Any extreme positioning of the wrist including flexing, dropping or deviating (angling the hand to the side, or reaching with pinky fingers.) Anatomically this puts extra stress on tendons and may cause inflammation of the carpal tunnel the narrow tunnel at the wrist.

In hands—Pressing fingers, holding down notes, overly curved or curled fingers, collapsed joints and holding stretches or chords.

Posture Pointers

It is essential that the student sit at the correct height, at a level high enough so that knees descend from hips. There are many seat cushions available to raise a tall student or a young child using footstools so that the student's feet do not dangle. Adjustable stools and chairs with back support are available from a variety of sources.

Ensure piano racks or music stands are at a level allowing the student's head to be neutral and erect to avoid neck strain. Looking down at one's hands and up to music should be avoided.

“No artist is immune from pain or injury without injury prevention education and awareness.”

Our power comes from our back. Shoulders should be down and squarely facing forward. The student's forearm should descend slightly from the elbow, at a level even or a little higher than the keyboard, approaching the keyboard from above. Wrists should be level. Sit not so close that wrists “drop,” yet not too far that fingers fall off the keyboard. Avoid arching the wrist and spreading fingers too far apart. This reduces strength. Exaggerated wrist positions should be avoided on any instrument.

The student should “think tall” as if they are puppets on a string, so torsos are upright but not overarched. Watch the student's body mechanics when he or she is playing in the outer registers of piano. If a student leans or reaches, inflammation of the sacroiliac joint at the bottom of the back on either side of spine can occur. Pianists have a higher rate of compression in their spines as a result of pelvic torsion or twisting.

Statistics indicate 30 percent of pianists' back pain is on right side. This may be due to co-contraction of the right-leg muscles from using damper pedal. Discuss using the least force necessary, wearing good shoes, releasing at every opportunity and taking breaks to move so muscle tension is reduced.

Students sometimes use all their might for a chord. Utilizing extra force multiplies the stress on tendons. Holding down keys or notes does not increase sound on any instrument. A fast technique is from lifting fingers quickly. Encourage students to release presto! Fingers should be naturally curved in a relaxed position in playing position but not playing tension. The weight of the arm should be used to depress keys or notes.

Jazz pianists may be at higher risk for injury due to the improvisatory nature of their playing. They are subject to fast unpredictable changes in rhythm, where fingerings are not pre-determined. The playing of “vamps” often result in more repetition, and postures may be awkward due to lack of space. Jazz and freelance musicians should be encouraged to carry props, supports, ergonomic cushions, stools and anything to help with comfort.

Another risk factor is joint laxity, or “double jointedness,” prevalent in musicians. To prevent the joint from buckling, these players must use extra force to maintain the curve in their fingers increasing the risk of injury. Ring splints in both plastic and silver are available to protect the joints. These are medical devices that must be prescribed and fitted by a physical therapist.

Injury Susceptibility Quiz

	YES	NO
Does your teacher have an intense teaching style?	___	___
Is your playing style intense, emotional, macho?	___	___
Is your position awkward or uncomfortable?	___	___
Do you have a predilection for difficult, pyrotechnical, challenging, loud repertoire?	___	___
Do you love to slam your bow or slap your fingers into the strings or slam or squeeze down keys?	___	___
Do you practice mostly at the forte dynamic range?	___	___
Do you squeeze your instrument while holding it?	___	___
Do you jam the keys down, even when playing softly?	___	___
Do you lose track of time when practicing?	___	___
Do you have difficulty saying “no”?	___	___
Do you clench your jaw or grit your teeth?	___	___
Do you schedule back-to-back rehearsals, gigs and performances?	___	___
Do you play in spite of fatigue and pain?	___	___
Do you fling your fingers off strings or keys?	___	___
Do you grip your bow tightly or grab your fingerboard or squeeze it?	___	___
Do you play without warming up?	___	___
Do you play a very large, heavy or very resistant instrument?	___	___
Do you play with a heavy bow, keep your strings high or use a worn-out, ill-fitting chin rest?	___	___
Do you stretch to reach notes or keys?	___	___
Do you hold fingers uplifted and/or curled?	___	___
Do you hold stretches, double stops or chords down?	___	___
Do you snap your elbow when changing from downbow to upbow?	___	___
Are you a tense, stressed person?	___	___
Are you depressed?	___	___
Do you neglect to warm-up?	___	___
Do you sleep poorly?	___	___
Are you physically inactive?	___	___
Are you overweight?	___	___
Do you consume more than two cups of caffeinated beverages a day?	___	___
Do you take drugs or drink more than a moderate amount of alcohol?	___	___

Copyright Janet Horvath. Used with permission.

Physical Traits And Expectations

We are all built differently. Small hands, slender wrists and the particular anatomy of the student require careful consideration of repertoire, length of practice times, and the number of auditions, contests and performances the student undertakes, which may increase stress and tension. Discuss the expectations placed on the student by parents, the teacher or by the student themselves. Suggest taking more breaks, practicing with less intensity and utilize mental practice methods that include visualizations away from the instrument.

Safe Practice

Create Safe Practice Plans before the student begins to practice with particular attention to alternating their repertoire. It is easy to get stuck on a difficult technique, which overuses the muscles. Students should always warm up and include 10 minutes per hour of break time during practice. As teachers, if you incorporate a few minutes of warm up at the beginning of your lessons it will become a lifetime habit.

Wiggle!

We are trained to sit like statues, and static postures are the enemy. Lack of movement or static loading can cause tension to build and restrict blood flow. Even small unobtrusive “moves” can alleviate tension. While onstage, it is wise to give your body a “mini-break” whenever there is bar or two of rest: hang arms down, roll shoulders and thumbs, adjust seating, pull shoulders gently back by clasping your hands behind you at your waist, turn hands clockwise and counter clockwise, and move your head and neck.

Have A Ball

Use these simple techniques to help release tension—lie on foam rollers, lie

or roll on small super balls or tennis balls, or use the theracane—a self-massage device. Therapeutic non-invasive techniques such as Kinesio taping, biofeedback machines and ultrasound are very helpful.

Danger Signals

The first indication of a problem may be subtle such as fatigue, weakness or impaired dexterity. Pain and especially numbness indicates that something is not right. It is of the utmost importance to get a diagnosis because many injuries have similar symptoms. (See *Injury Susceptibility Quiz*.)

If a student does sustain an injury the sooner it is diagnosed by a performing arts medicine specialist, the more likely it will be resolved. It is essential for the student to stop playing while you and a health care professional analyze what may have caused the problem taking into account activities outside the music studio. Muscle-tendon injuries can take many weeks to heal.

Importance Of Gradual Return

After the student is pain free *how* the student returns to playing is very important. It is easy to re-injure oneself. Five minutes the first few days is a good start, as we tend to forget that playing is physically taxing. Increase the number of five-minute segments over a period of several days before the length of time is increased. The student should take weeks to build up to longer practice sessions.

Keep tension at bay by encouraging stress reducing activities such as therapeutic massage, yoga, Pilates, Feldenkrais, Alexander technique, swimming or walking. Make comfort a priority and encourage openness in discussing a healthy approach to playing.

AMT

DO'S AND DON'TS

10 DO'S FOR INJURY PREVENTION

- 1. Do Warm-Up.** Warmed muscles are more efficient, strong and resilient. Muscles that are overused, fatigued and under-conditioned are more tense and require more work for a demanding task. Start with a walk, then several stretches away from the instrument and do them slowly and smoothly. At the instrument, start slowly and easily.
- 2. Do Take Breaks.** Ten minutes per hour minimum is a good guide. It is helpful to let your arms down and hang them loosely at your sides for a few seconds after a difficult passage. After tremolo or fortissimo passages or after long stretches of sustained playing, move your thumbs in circles or stretch them out gently to release any tension. Reed makers, this applies to you, too.
- 3. Do Sit With Good Posture.** Keep Your Shoulders Down And Your Back Straight. Keep your weight forward and on your feet. Do not slouch. Don't cross your legs when you play, or curl your feet around the chair. Keep your head upright, in a neutral position. Lifting shoulders, turning or twisting your torso, and leaning to the left or right contribute to muscle strain and may lead to injury.
- 4. Do Increase Your Practice Load Gradually And Vary Your Repertoire.**
- 5. Do Some Stress-Reducing Relaxation Activity And Get Exercise.** Yoga, stretching, swimming, Alexander Technique and massage are all good preventative activities. These can help to keep tension from building up. Muscles that are tight, weak and untuned are more injury-prone than strong, flexible and resilient muscles.
- 6. Do Take One Day Off A Week.**
- 7. Do Be Easier On Yourself When You Are Under Duress Or When You Are Overtired.** Your body will be more tense and at risk for injury when you are under duress. These are times to be careful about intense, long hours of playing. When you're stressed or overtired, take more breaks, take more time to warm-up, do stretches more often, and practice more mindfully.
- 8. Do Move.** Sitting very still builds up tension. During long hours of playing, take time to wiggle and stretch. Try to avoid being static or "freezing" in any one position.
- 9. Do Breathe Deeply.** When we're nervous we tend to breathe very shallow breaths, or even hold our breath. Our muscles then may not get the oxygen they need. In fact, we may shake. During rests in music, concentrate on taking several deep breaths.
- 10. Do Practice Away From The Instrument.** This is especially helpful for memorization and performance anxiety. Listen to music and study the scores or piano parts of your repertoire. It's just as important to practice mental preparation as it is to achieve physical mastery of your music. Visualize performing well. Silence that doubting, chattering voice inside you by giving yourself positive suggestions. Tell yourself: "I am calm," and "I sound wonderful," rather than "What if I miss this shift?" or "I'm sure to have a memory slip." Your subconscious believes whatever you tell it.

Copyright Janet Horvath. Used with permission.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.