HEALTH, WELLNESS AND SAFETY AWARENESS FOR MUSICIANS
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Hearing Loss
As musicians, our hearing is an EXTREMELY valuable asset. Be smart, use common sense and know your own risk factors – how loud is the situation and how long is it safe to endure?
- Acoustic Instruments
- Amplified Instruments
- Ensembles (where you sit matters, sound shields save hearing!)
- Room Size
- Earphones
- Car/Room Sound Systems

HOW TO “LOOK” AT NOISE
INTENSITY COMPARISONS WITH NIOSH
RECOMMENDED PERMISSIBLE EXPOSURE TIME
Note: For every 3dB the energy doubles.

85 dBA - 8 hour exposure limit
88 dBA - 4 hour exposure limit
91 dBA - 2 hour exposure limit
94 dBA - 1 hour exposure limit
97 dBA - 30 minute exposure limit
100 dBA - 15 minute exposure limit
103 dBA 3 1/2 minute exposure limit
106 dBA - 3 3/4 minute exposure limit

NOTE:
Noise Levels for the Following:
91dB - Orbital Sander
96 dB - Router
101 dB - Circular Saw
How Loud Is Too Loud?

Protect Your Ears
Know which noises can cause damage. Wear earplugs when you are involved in a loud activity.

110 Decibels
Regular exposure of more than 1 minute risks permanent hearing loss.

100 Decibels
No more than 15 minutes of unprotected exposure recommended.

85 Decibels
Prolonged exposure to any noise at or above 85 decibels can cause hearing loss

<table>
<thead>
<tr>
<th>Decibels</th>
<th>Sound Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>Firecracker</td>
</tr>
<tr>
<td>120</td>
<td>Ambulance siren</td>
</tr>
<tr>
<td>110</td>
<td>Chain saw, Rock concert</td>
</tr>
<tr>
<td>105</td>
<td>Personal stereo system at maximum level</td>
</tr>
<tr>
<td>100</td>
<td>Wood shop, Snowmobile</td>
</tr>
<tr>
<td>95</td>
<td>Motorcycle</td>
</tr>
<tr>
<td>90</td>
<td>Power mower</td>
</tr>
<tr>
<td>85</td>
<td>Heavy city traffic</td>
</tr>
<tr>
<td>60</td>
<td>Normal conversation</td>
</tr>
<tr>
<td>40</td>
<td>Refrigerator humming</td>
</tr>
<tr>
<td>30</td>
<td>Whispered voice</td>
</tr>
<tr>
<td>0</td>
<td>Threshold of normal hearing</td>
</tr>
</tbody>
</table>
Aligned/Balanced- Skeletal System

For proper alignment, balance & posture:
- Requires very little muscular effort
- Muscles are in neutral state – ready to move
- Posture should be fluid and balanced, not held
- Nervous system & memory function at high levels

Ways to help prevent misalignment:
- Wear good shoes that provide good support and avoid shoes that do not
- Be aware of your posture when sitting, avoid slouching, get up and move around every 30 minute or so when sitting for a prolonged length of time is possible
- Do exercises that specifically target your abs and back, a strong core is important
- In addition to strengthening exercises, stretching is important as well

For exercises that aid in back alignment awareness and flexibility, see: http://www.livestrong.com/article/129697-back-alignment-stretches/

Poor alignment & posture
Compresses limited space for nerves, veins, tendons, ligaments
Critical areas where compression often occurs:
- Head-Neck; Carpal Tunnel

Symptoms can include:
- Sore / stiff neck or back
- Low energy, tiredness, or fatigue
- Headaches
- Muscle spasms in the back
- Joint pain
- Numbness, tingling, or altered sensations

Results can include:
- Restricted blood flow (oxygen & nutrients to muscles; waste removal-lactic acid)
- Presses on nerves, resulting in tingling, numbness
- Slows down or blocks communication from brain - performance anxiety
- If tendons & ligaments forced to work around a curve, they fray, swell and put pressure on nerves
- Requires muscles to contract and hold
- Muscles not designed for posture will compensate and begin to fail
Carpal Tunnel

Computer Keyboards / Texting
- Wrist should be level
- Wrist should be straight between arm and hand (not twisted left or right)

Instruments
- Keep wrist as neutral as possible
- Passive (reactive) movements away from neutral are safe
Muscles
Aim for well-coordinated technique
Activate only the needed muscles:
- Know which are active and which are passive
- Focus on efficient and restorative muscle use
- Muscles should contract and release
- They contract faster than they release
- Fingers should contract on preparation; release back to neutral state to play
- Chronic contraction limits movement (speed and facility)

Fatigue or pain are warning signs of inefficient body usage
Find ways to work with the body rather than against it

Whole-Body Education Programs
Increase kinesthetic awareness
Andover Educators – www.bodymap.org

What Every Musician Should Know About the Body
Alexander Technique – www.amsatonline.org

Egoscue – www.egoscue.com
“Pain Free Workout” (DVD)
“Posture Solutions” (DVD)
Yoga / Tai Chi
Developmental Fitness – sensory/motor integration www.developmentalfitness.org

Mind/Body Balance
Three areas of brain - need integrated balance:
- Survival (mostly subconscious)
- Emotions
- Intellect

Fear sends brain into survival mode & initiates fight-or-flight response (performance anxiety)

Use body to restore balance/reduce negative effects:
- Conscious Breathing
- Stretches – release muscular tension
- Expend excessive energy – run/jump rope/climb stairs
Emotions
Can promote or inhibit learning
Release negative emotions:
- Vent your frustrations in a safe, professional way
- Exercise regularly
- Find something to be thankful for
- Laugh
- Keep a positive attitude and don’t let others pull you down
- Keep your distance from overly negative people

Smart Practicing
Stress reducing techniques
It is an important skill to know how we react to stress and also how to deal with it.
Following are some points to consider:
- Acknowledge that stress happens. It is usually caused by something that occurs outside of you and you can control your response to it
- Distract yourself form the stress until you can address it approximately
- Think positively
- Take a mental vacation and visualize something moere pleasant than the stress
- Use affirmations: “I can handle this”, I am a work in progress”, etc.
- Take several deep breaths
- Press on your temples. Acupressure using the fingertips moving in small in small circles over your temples relaxes muscles in your neck
- Engage in a physical activity such as jogging or yoga

To reduce stress while practicing
Avoid mindless repetition
Layer information, noticing various details:
- Pitches/fingerings/articulations/diction/intonation
- Practice SLOWLY to learn music as accurately as possible
- Body usage: balance, posture, tension, movement

Simple yoga stretch
The following can be used for relaxing muscle tension that results from stress:
- Stand relax, arms hanging to your sides and with your feet above one foot apart
- Gently tilt your head forward and hold for five second
- Gently roll your head to each shoulder and hold on each side for five seconds
- Curl your chest and stomach forward as you bend at the waist; let your arms dangle for five seconds
- Inhale slowly through your mouth as you straighten back up
- Raise your arms overhead; drop arms slowly to your sides as you exhale through your mouth
Seek Help – Physical/Mental
Applied Instructor – tell them of any issues
Medical Profession – MRI, x-rays, scans

Research – articles/books/programs
Repetitive Stress Injury:
- Whole Body Education
- Your particular instrument

Keep looking until you find the information or help you need

For night or weekend mental health emergencies:
- Contact University Police immediately at 325-942-2071 so that a counselor can be paged, or
- Go to the nearest hospital emergency room, or
- Call the MHMR Crisis Hotline at 325-653-5933

National Suicide Prevention Lifeline: Available 24/7
1-800-273-8255

Campus Resources
University Health Clinic and Counseling Services
2601 W. Avenue N
San Angelo, Texas 76909
325-942-2171
health@angelo.edu
http://www.angelo.edu/services/health_clinic_counseling/

Additional Resources
Texas Center for Music and Medicine: http://music.unt.edu/tcmm/
Performing Arts Medicine Association: http://artsmed.org