

Supplemental Materials

Dear Musician,

This is a questionnaire study about musicians' working conditions, hearing, and hearing protection. Our goal is to better understand whether and when musicians use hearing protection and the difficulties involved. There have been very studies on hearing protection in musicians, so your input is much appreciated and vital! The more specific and detailed the information you can give, the more clearly we can understand the problems involved. Please fill in the questionnaire even if you have experienced no problems, since this is also of value to the study. A similar study was conducted very recently in Finland on musicians belonging to the five major classical orchestras, and should be published in the near future. The scope of the present questionnaire is broader and our questions differ from the Finnish study.

All the personal information you give us will be kept strictly confidential. The analysis will be written up in such a way that no person can be identified. For example, if there is only one person of a certain age group, gender and instrument, the result will be combined with or included in another similar group. If something is unclear in the questionnaire please do not hesitate to ask me.

Thank you again for your time!
The Experimenters

Unless otherwise stated, check the box or boxes that best correspond to your opinion or experience, or write your answer in the blanks provided. For open questions, you can continue on the back side of the page if needed.

SECTION A: GENERAL

- 1. Age _____ years
- 2. Gender: female ___ male ___
- 3. What is your main instrument? _____
- 4. What secondary instruments, if any do you play? _____
- 5. How long have you played in professional bands? _____ years
- 6. How many hours a week do you devote to...
 - personal practice? _____ hours/week
 - concerts and rehearsals with the band? _____ hours/week
 - Teaching? _____ hours/week
 - Other: paperwork, planning, learning the scores, etc.? _____ hours/week

SECTION B: HEARING PROTECTION AND SOUND LEVEL REDUCTION

1. Do you use hearing protectors...?

	Never	Seldom	Sometimes	Often	Always
During personal rehearsals	1	2	3	4	5
During band rehearsals	1	2	3	4	5
During performances	1	2	3	4	5
While teaching	1	2	3	4	5
F Other, what? _____	1	2	3	4	5

2. Use of hearing protectors

I got used to wearing hearing protectors right away ___

It took me weeks/months/years (circle one) to get used to hearing protectors ___

I am not used to hearing protectors but I use them anyway ___

I was unable to get used to wear hearing protectors so I stopped using them ___

I have never used hearing protectors ___

Comments? _____

If you do not use hearing protectors please go to question 12 in this section.

3. What kind of hearing protectors/ear plugs do you usually use while playing?

Disposable foam or cotton earplugs ___

Custom-molded earplugs ___

HI-Fi plugs (Christmas trees) ___

Other, what? _____

4. If you use custom-molded earplugs, can you describe them in detail (filter, for example ER-15, material (acryl /silicone), manufacturer etc.)

5. Do you use hearing protectors in both ears? Yes ___ No ___

If you answered no, in which ear do you use hearing protection? _____

6. If you wear only one hearing protector, please explain why _____

7. How long have you used hearing protectors? _____years

8. Have you ever changed the type of hearing protectors you use, and if so from what to what type (for example first disposable foam plugs and now custom-molded earplugs)?

Why did you change type?

9. When you are wearing hearing protectors, do you use them continuously?

Yes ___ No ___

If you don't use them continuously, when do you use them (take them off during breaks, when conductor is talking, only for loud passages, etc. _____)

10. Have you ever had any of the following problems when using hearing protectors?

Hindering your own performance ___

Difficult to hear other people playing ___

Discomfort ___

Difficult to put in the ears ___

Earplugs caused infections ___

Earplugs caused dizziness ___

Feeling of pressure from the earplugs ___

Other, what? _____

11. What is the key issue affecting the use of hearing protectors, in your opinion?

12. Have there been other attempts to reduce sound levels in the band?

Plexiglass screens ____

Risers/platforms where some musicians sit above others so that the sound is directed over others' head ____

Changes in the acoustics of the hall ____

Seating arrangements ____

Hearwig®, Goodear etc. (specially designed sound barriers surrounding one's head, reducing sound levels coming from behind) ____

Other, what? _____

13. Have they helped?

Yes ____ No ____ Cannot say ____

14. Is it possible to use a silencer/muffler with your instrument?

Yes ____ No ____

If you answered yes, how often do you use it when practicing alone to reduce the sound levels from your instrument?

Never ____ Seldom ____ Sometimes ____ Often ____ Always ____

15. All in all, what do you think would work the best to reduce sound levels? Please choose the three best options by numbering them 1,2, and 3

Plex glass screens _____

Risers/platforms _____

Changes to the acoustics _____

Seating rearrangements _____

Hearing protectors _____

Hearwig®, Goodear etc. _____

Other, what? _____

I don't think anything will help ____

16. Are you satisfied with the way hearing protection is handled in your band?

Yes ____ No ____

If you answered no, what could be done?

SECTION C: OCCLUSION EFFECTS

Occlusion effect = one's own voice or sound from the instrument sounds hollow and different while wearing hearing protectors.

If you do not use hearing protectors please go to section D: Health related questions.

1. Have you experienced any of the following problems when using hearing protectors?

Own voice sounds different ____

Own instrument sounds different ____

I can hear my own breathing more clearly ____

Sometimes my ears feel blocked ____

My ear canals feel moist ____

My ear canals itch ____

2. Do the above mentioned problems differ depending on the type of hearing protectors?

Yes ___ No ___

3. If yes, what kind of hearing protector is best for you? (The more information you can provide such as, the type, model, manufacturer, etc. the better)

4. Have one or more of the above mentioned problems caused you to stop using hearing protectors?

Yes ___ No ___

If yes, please specify? _____

5. If you feel your instrument sounds different, could you describe the difference

6. When experiencing a hollow sound quality when wearing earplugs, do you find this...

Not annoying ___ Slightly annoying ___ Annoying ___ Very annoying ___

7. Which of these unpleasant sensations have you experienced while using hearing protectors (if any) ?

moist ear canal ___

Itching in the ear canal ___

Smarting pain in the ear canal ___

Eczema in the ear canal ___

Pain in the ear canal ___

I have not experienced any of these ___

8. If you utilize hearing protectors that can be used many times, how often do you clean them and how? _____

9. Do you have tendency to get ear canal infections?

Yes ___ No ___

10. Do you have tendency to have large amounts of ear wax?

Yes ___ No ___

11. Do you feel blocked up while wearing your hearing protectors?

Yes ___ No ___

SECTION D: HEALTH-RELATED QUESTIONS

Tinnitus = a sound lasting a minimum of 5 minutes, an occasional sensation of a ringing, roaring, or buzzing sound in the ears or head even though no such sound is present

1. Do you have tinnitus?

Yes ___ , since _____ No ___

If you answered no (have no tinnitus), please go to question 12 in this section.

2. How did it begin?

Gradually ___

Emerged suddenly after an incident ___

I do not remember when it first occurred ___

3. Do you know what caused the tinnitus? _____

4. What does your tinnitus sound like? _____

5. Is it always present?

Yes ___ No ___

6. Does it affect sleep?

Yes ___ No ___

7. Does it sometimes disappear?

Never ___ Minutes ___ Hours ___ Days ___ Weeks ___

8. Is there something that makes it worse?

Loud sound ___

Physical effort ___

Pain, aches ___

Supine position ___

Stress ___

Heat ___

Cold ___

Other, what? _____

9. Have you tried treatments?

Yes ___ No ___

If you answered yes, what was the treatment and has it been helpful? _____

10. Have you found any special method of your own that reduces tinnitus or helps you cope with it? _____

11. Have you had temporary tinnitus after ...

	Never	Seldom	Sometimes	Often	Always
Personal rehearsals	1	2	3	4	5
Band rehearsals	1	2	3	4	5
Performances	1	2	3	4	5
Teaching	1	2	3	4	5
Other, what? _____	1	2	3	4	5

Hyperacusis (extreme sensitivity to sound) = abnormal sensitivity to everyday sound levels or noises. Often there is also sensitivity to high pitched sounds.

12. Do you experience hyperacusis?

Yes ____, since _____ No ____

If you have no hyperacusis, please go to question 19 in this section.

13. In which ear do you experience hyperacusis?

Left ___ Right ___ Both ___

14. Do you know how it began? _____

15. Can you give an example of a sound that you cannot tolerate (which other people can)? _____

16. Have you tried any types of treatment?

Yes ___ No ___

If yes, what? _____

17. Have you found any special method of your own that helps you reduce hyperacusis or to cope with it? _____

18. Do you have high sensitivity to the following:

Light ____

Touch ____

Pain ____

Balance/vertigo ____

Smell/scent ____

Taste ____

Distortion = when sound reaches a certain level, it is perceived as being impure, cracked, distorted

19. Do you experience distortion?

Yes ____, since _____ No ____

If you don't experience distortion, please go to question 25 in this section.

20. In which ear do you experience distortion?

Left __ Right __ Both ____

21. When do you experience the distortion? _____

22. How does it sound? _____

23. Have you tried any types of treatment?

Yes ____ No ____

If yes, what? _____

24. Have you found any special method of your own that helps you reduce distortion or

cope with it? _____

Diplacusic = the pitch of a sound presented to both ears is heard differently in the two ears

25. Do you experience diplacusic?

Yes ____, since _____ No ____

If you don't experience diplacusic, please go to question 30 in this section.

26. When do you experience diplacusic? _____

27. How does it sound? _____

28. Have you tried any types of treatment?

Yes ____ No ____

If yes, what? _____

29. Have you found any special method of your own that helps you reduce diplacusic or cope with it? _____

30. When was your hearing last checked?

In the last 12 months ____ 1-3 years ago ____ 4-5 years ago ____

6-10 years ago ____ Over 10 years ago ____ Cannot say ____

31. When your hearing was checked, were you diagnosed with hearing loss?

Yes ____ No ____ Cannot say ____

Questions 32-37 are from a standard health survey of quality of life (5D©, 15D©).

Please check the appropriate box in each group below to indicate which statements best describe your own health today.

32. Mobility

I have no problems in walking about ____

I have some problems in walking about ____

I am confined to bed ____

33. Self-Care

I have no problems with self-care ____

I have some problems washing or dressing myself ____

I am unable to wash or dress myself ____

34. Usual activities (e.g. work, school, housework, family or leisure activities)

I have no problems performing my usual activities ____

I have some problems performing my usual activities ____

I am unable to perform my usual activities ____

35. Pain / Discomfort

I have no pain or discomfort ____

I have moderate pain or discomfort ____

I have extreme pain or discomfort ____

36. Anxiety/Depression

I am not anxious or depressed ____

I am moderately anxious or depressed ____

I am extremely anxious or depressed ____

37. Hearing

I hear normally; i.e., I can hear normal speech (with or without a hearing aid) ____

I can hear normal speech with a little difficulty ____

I hear normal speech with considerable difficulty; in conversation I need voices to be louder than normal ____

I hear even loud voices poorly; I am almost deaf ____

I am completely deaf ____

SECTION E: WORK ENVIRONMENT

1. Are you worried about your hearing?

Not at all __ Only a little worried __ To some extent __ Quite worried __ Very worried __

2. How many hours of your work takes place in the evening? _____ hours in a week

3. My work is inspiring and meaningful

Completely Almost I do not agree but Almost Completely
disagree __ disagree __ also not disagree __ agree ____ agree

4. Do you ever feel that you have too little time to do your work properly?

Hardly ____ Quite ____ Now and then ____ Quite ____ Frequently ____
Never rarely often

5. Are you experiencing this kind of stress at the present time?

Not at ____ Just ____ To some extent ____ Quite ____ Very ____
all a bit a lot much

6. Rate your ability to work at the present time compared to when it was the best?

Please rate on a scale of 0-10 where 10 = your best and 0 = a complete inability to work

Unable to work 0 1 2 3 4 5 6 7 8 9 10 best work

7. Do you feel that you can influence your work surroundings?

Yes ___ No ___ Cannot say ___ **If you answered yes, how?** _____

8. Do you find the following situations noisy?

	Not at all noisy	A little noisy	To some extent	Quite noisy	Extremely noisy
Personal rehearsals	1	2	3	4	5
Band rehearsals	1	2	3	4	5
Performances	1	2	3	4	5
Teaching	1	2	3	4	5
Other, what? _____	1	2	3	4	5

9. How would you describe the following instruments?

	Not at all noisy	A little noisy	To some extent	Quite noisy	Extremely noisy
String instruments	1	2	3	4	5
Woodwinds	1	2	3	4	5
Brass	1	2	3	4	5
Percussion instruments	1	2	3	4	5
Choir	1	2	3	4	5
Organ	1	2	3	4	5
Other, what? _____	1	2	3	4	5
Other, what? _____	1	2	3	4	5

Comments? _____

10. Do you ever feel that the band is playing uncomfortably loud?

Yes ___ No ___

Comments? _____

SECTION F: REHEARSAL AND PERFORMANCE FACILITIES

1. Please list the names of three performance facilities (concert halls, churches, arenas, etc.) in rank order that are “kind to ears”, i.e. loud sounds do not disturb you, where it is easy and comfortable to play. If the places are in different cities or countries, please provide specific details.

1. _____

2. _____

3. _____

2. In what kind of playing facilities do you find it difficult to play (and why)?

3. Do you have quiet facilities at your workplace where you can rest your ears, if you want to? Yes ___ No ___

If not, would you like to have such facilities? Yes ___ No ___
