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# Volume Levels and Hearing Safety at East Gate Church

## Introduction

Let's get one thing out of the way from the start... at East Gate Church we like to worship with loud music and we are unapologetic about that. However, we frequently receive questions from individuals who have concerns about the volume of the music. We do hope this document can explain our decisions and help answer your questions. We want you to be assured that we make the safety of our church, both present and future, one of the highest priorities in our decisions. We take any questions about the safety of our volume levels extremely seriously and are continuously evaluating what will serve our congregation most effectively.

## Standards of Safety

Because the pastors and staff at East Gate Church are not scientific experts, we are thankful that the US government has done much research in the area of hearing safety. The government's Occupational Safety and Health Administration (OSHA) has researched and published its recommended sound levels for employees.

To summarize what it says, the following sound levels are permissible, given the lengths of time indicated:

15 minutes per day = 115 dBA  
30 minutes per day = 110 dBA  
1 hour per day = 105 dBA  
1.5 hours per day = 102 dBA  
2 hours per day = 100 dBA  
3 hours per day = 97 dBA

The table goes further, but we will stop there since it is very rare that the church will ever have more than one hour of music in a particular service, let alone more than three hours.

## Applying These Standards To East Gate

In order to adhere to these standards at East Gate Church, we use a decibel meter to measure the volume levels. That meter resides at the main soundboard but will frequently be brought around the sanctuary. It is used to monitor and make sure that we are not exceeding our desired levels. For most services, we target a sound level of 95dB to 97dB. Only occasionally will we go beyond that level, though sometimes the levels may reach as high as 100dB. In contrast, many churches around the world including Hillsong, Bethel and Elevation Church all keep their sound levels between 107dB and 114dB.

At this point, we have to note a couple technical details in order to fully explain our measurement system. Remember, the volume level in the sanctuary is not perfectly even throughout the room. The area right in front of the stage may be louder than where we measure at the sound booth, as well as the sides because of the reflection from the facades. The middle of the sanctuary is softer than where we measure at the sound booth. Nevertheless, the difference is of around 2 dB more or less. Also to note, when we have guest ministry they usually bring their own sound engineer and we are not responsible for the sound levels.

### **Examples for Consideration**

Let's take a few examples in order to work this out in real life:

#### A Regular Attendee |

A regular attender will normally experience about 35-45 minutes of live music on a Sunday morning. Let's round up to one hour to be safe. That person can listen to music at 105 dB without concern for hearing damage. The normal level of 97 dB is well below that threshold.

#### A Student Attending Youth Events |

The occasional times we go past 97dB typically happen in the meetings aimed at the younger generation of the church. A person attending one of these events will experience about 45 minutes of music. Let's round that up to one hour again. They can listen at 105 dB without any hearing damage. And once again, even the highest levels of 100dB are well below the threshold of danger.

### **Safety, Comfort, and Preference**

Finally, we must acknowledge that even within the range of safe sound volume, different people will have different preferences. Scientific findings will not necessarily make it easier for people to enjoy sound levels that are higher than they desire. The sound technicians and Worship Leader are responsible to ensure that the sound levels do not exceed safety standards. However, with personal preference in mind we do have disposable earplugs available at every event for anyone who is not comfortable with the sound levels.

### **In Conclusion**

Thanks again for your concerns and questions about our sound levels. We appreciate your input and we hope that your concerns have been addressed here.