

# CHURCH SOUND SYSTEMS & CHURCH ACOUSTICS ARTICLES SERIES

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## Sharing Tooth Brushes on Stage!!!

### Do you share toothbrushes at home?

Singing on stage is a great experience. It is up lifting and spiritual. Being on stage makes us all performers. This is also true for ministers and lay people. The instrument of choice to project your voice to a large room of people is a microphone that is connected to a sound system.

Microphones come in all kinds of shapes and sizes. They are used in one of several common ways. Microphones are either static, hand held or worn on the body. There is also another type of microphone use as pickups for guitars and piano's. A microphone is nothing more than speakers in reverse.

In general microphones used for singing or talking are mounted in a barrel or rod. Depending on the size of the microphone capsule between the output of the mic and the output of the barrel, there are circuits that are either passive or active to boost the output and created the desired frequency response to match the original sound as accurately as possible. Some mics are so small that they go from mic to barrel and out to a wire right away. Then within 10ft or so, a balancing circuit is placed into the barrel of a mic connector before the signal is sent to a mixer or recording device.

The three most common microphones used are handheld and static microphones on lecterns or microphone stands and body mics. Many of these microphones have foam windscreens that are replaceable. Did you know that every microphone has a personality?

Some mics are ideal for bass singers. Some microphones are great for people who scream out their music. There is a microphone to suit everyone's needs and style of performing. Every professional quality microphone model has unique characteristics and within each model there are subtle differences. Just as when you play 3 piano's that look the same, one of them will be better for that performer. This is the same with Guitars, Violins and so on. It is also true with microphones. (Try sitting in on a recording session at a high end recording studio. Some studios have every type and model of microphone that has ever been made to meet the artist's needs.)

Sadly, there are only a few performers who travel around with personalized microphones. Performers like Crystal Gale or Wayne Newton have personal mics and they also have custom finished colored sleeves and windscreens to match the



clothing they wear. Many people who see these custom microphones often think the performer as having a big ego. What's wrong? Isn't the microphone the sound company supplied not good enough? The answer is no. The issue is about health.

Microphones are musical instruments. They are an extension of the singer or minister. People don't say much when musician customize their guitars and drum sets. In fact, people try to get copies of such instruments. So what is so wrong with people doing the same with microphones? In fact, singers should have personalized microphone that they bring from show to show. Here is the reason why.

How often do you hear of concerts that are cancelled because the main performer had a bad flu, cold, or throat problem? I am sure we all have heard of such events. Did you ever wonder how they might have gotten sick? Do you ever wonder how ministers who travel from church to church get sick or why they are getting sick so often?

All microphones are used in front of our mouths. People spit on them, sneeze on them, and handle the microphone from the top down. If the person before you is sick, all of those germs and viruses can be passed on up to 7 days after it was last used - depending on how wet or old the windscreen is. Did you know that there is no way to clean a microphone for germs? All you can do is replace the windscreen?

At my church, there has been a number of times where everyone on the praise team would get sick. This most often happens where there are worship services back to back. It seems that one week one person has strep throat. The next week 3 members of the team are sick with the same problem until everyone get sick who uses a microphone. For some churches it seems like someone is always getting sick in the worship team.

Here is some info about viruses and bacteria and how there are transmitted. These are excerpt from the Mayo Clinic.

*“The length of time that cold and flu viruses can survive outside the body on an environmental surface varies greatly. But the suspected range is from a few seconds up to 48 hours, depending on the specific virus and the type of surface.*

*Flu viruses tend to live longer on surfaces than cold viruses. Also, it is generally believed that cold and flu viruses survive for longer periods on nonporous surfaces — such as plastic, metal or wood — than they do on porous surfaces — such as fabric or paper.*

*Although cold and flu viruses primarily spread from person-to-person contact, they can also spread from contact with contaminated objects or surfaces. The best way to avoid becoming infected with the cold or flu virus is to wash your hands frequently with soap and water or alcohol-based hand sanitizer.*

*Other tips for staying healthy during cold and flu season include:*

- *Get a flu shot. This is the one of the most effective ways to prevent influenza.*
- *Regularly clean your desk, phone and computer keyboard and mouse — at home and at the office — with disinfectant sprays or wipes.*
- *Stay home if you're sick. Don't expose others to your germs by dragging yourself to the office, theater or PTA meeting.*

*The cause of strep throat is bacteria known as Streptococcus pyogenes, or group A beta-hemolytic streptococcus.*

*Streptococcal bacteria are highly contagious. They can spread through airborne droplets when someone with the infection coughs or sneezes. You can also pick up the bacteria from a doorknob or other surface and transfer them to your nose or mouth. Kitchen utensils and bathroom objects are other common sources of infection transmission.*

## **Prevention**

*Proper hand cleaning is the best way to prevent all kinds of infections. That's why it's important to clean your own hands regularly using soap and water or an alcohol-based hand sanitizer. In addition, don't share drinking glasses or eating utensils. Wash those items carefully in hot, soapy water or in a dishwasher.”*

This means that items like microphones should be cleaned after every worship service. Better yet, don't share your microphones. If you do it is like share your tooth brush. I think it is high time that singer take their craft more seriously and consider their health when performing. I myself have been bringing my own microphone to lectures and seminars for years.



Every few months I change the windscreen which costs about as much as a toothbrush and wipe the barrel down after each use with alcohol hand wipes. I have not been doing the cleaning just for sanitary reasons. I just like the way I sound on that microphone and I take care of it the same way a musician takes care of their instrument.

I think it is high time to re-think the way we use microphones in general. If you're concerned about your health, don't feel embarrassed to use a piece of plastic over a public telephone mouth piece or cell phone. If you want to cut down on the number of colds you get, you should change the way you use microphones – especially if you a minister or performer.

Minister and singers should be making the same investment as musician do and personalize the microphone. They don't



cost much. A Shure SM58 costs around \$100.00 and a high end microphone like an AKG 451 costs about \$600.00. Yes, I know these are older mic models, but I still like the way they sound. A professional mic used by one person can last 20 years or longer.

Whether you're a singer in a praise team, singing to tracks from church to church or do Church concerts, you should be bringing your own microphone with a 25 ft cord. You should have a case for the mic, replacement windscreens and mini wipes to clean your mic after each performance. You should also have you name etched into the barrel or even have the barrel custom finished. You could also used colored tape. I know of one person who uses an embossed silver coated wall paper covering for the barrel of the mic with a custom mic clip for the floor stand.

This also goes for lapel mics and headset mics too. If anything, there is a greater need to personalize them as the mic is so close to the mouth that the capsule can remain moist for days. A light alcohol spray should do the trick. Another choice is to us compressed air to clean a miniature mic. You can get compressed air cans at most computer repair shops.

In writing this article, I did not check with any of the mic companies to ask them about cleaning their mics. However, I did check with a number of churches and have a number of personal experiences of people getting serious colds, flu's and streptococcal infections that never seemed to go away or passed on too quickly within a worship team, the gospel group or ministers at a seminar. I can ever recall at a Church Convention of 2000 minister where after a week, all of the main guest speakers came down with colds after the first guest speaker sneezed onto the lectern microphone 10 minutes into his sermon. At the end of the week, 9 ministers all went home with serious cold.

If you perform in the public and use your voice as an instrument, you should be doing whatever you can to take care of it. You should seriously look at getting your own microphone – if for nothing else, do it for your health. This is a great way to get out of sharing toothbrushes. Microphone etiquette should include personalized microphones.