The longer answer is **yes, indirectly**, sound can cause dry mouth by triggering a specific psychological and physiological chain reaction.

Here is the breakdown of how sound can lead to that physical sensation.

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1. The Fight or Flight Response (Sympathetic Nervous System)

The most common way sound induces dry mouth is by triggering fear or acute stress.

When you hear a sound that your brain interprets as a threat—such as a sudden, deafening crash, a high-pitched scream, or a growl—your body activates the **Sympathetic Nervous System**. This is the "fight or flight" response.

- **The Mechanism:** When this system activates, your body diverts resources to survival organs (heart, lungs, muscles).
- **The Result:** "Rest and digest" functions are deprioritized. Salivation is considered a digestive process, so the body effectively shuts it down to save water and energy.
- **The Outcome:** Almost instant dry mouth (cottonmouth).

2. Aversive Psychoacoustics

Certain sounds are biologically "hardwired" to be unpleasant to human beings. While these may not cause full terror, they cause significant physiological stress, which can inhibit salivation.

- **High Frequencies:** The sound of nails on a chalkboard or a knife scraping a plate (usually between **2,000 Hz and 5,000 Hz**) is universally hated. The physical cringe reaction involves muscle tension and autonomic arousal, which can dry out the mucus membranes.
- **Infrasound (The "Fear Frequency"):** Sound waves below 20 Hz (which are generally inaudible to the human ear but felt as vibrations) can cause feelings of awe, fear, anxiety, and nausea. Research into **19 Hz** frequencies suggests they can induce a feeling of "presence" or dread. If a person feels dread, their mouth will often go dry as a symptom of that anxiety.

3. The Power of Suggestion (ASMR's Opposite)

Just as ASMR (Autonomous Sensory Meridian Response) uses soft whispers and wet mouth sounds to trigger relaxation and tingling, the **inverse** can happen through suggestion.

If you were to listen to a high-fidelity recording of someone panting, wheezing, or describing the sensation of eating a spoonful of dry cinnamon or sand, your mirror neurons might empathize with the sound. This can make you become hyper-aware of your own mouth, making it feel drier than it actually is.

Summary

You cannot use a specific hertz frequency to physically dehydrate a tongue. However, you **can** use:

1. **Sudden, loud noise** to trigger adrenaline.
2. **High-pitched screeching** to trigger physical distress.
3. **Low-frequency vibration** to trigger dread.

Any of these will activate the nervous system in a way that naturally stops saliva production.