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When you do REM on a CROS or BiCROS do you measure both ears, or just the better ear? My mom wears BiCROS and we are seeing her audiologist tomorrow.

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There is nothing to measure for REMs in the bad ear; there's no output there! It's all going to the better ear. A good way to measure the benefits of a CROS fitting (or BICROS or AmpCROS) is to measure as follows:

1. Do your REM to match the target for the better ear as you normally would.
2. To evaluate CROS transmitter performance, set the presentation signal 90 degrees azimuth to the worst ear but with the probe mic in the better ear.
3. Set the calibration signal at 6 dB below what you normally would. Otherwise, head-shadow will cause it to overamplify to hit the calibration target.
4. Measure first with both sides turned off.
5. Then measure with the hearing aid turned on.
6. Then measure with the transmitter turned on.

If it's a CROS fitting, you'll see slight increases between aided, aid only, and aid plus CROS.

If it's a BICROS fitting, you'll see an appropriate increase between unaided and aided, but slightly below target. When the transmitter is turned on, you should see the results at or slightly above target. If it's over target, it may be tempting to reduce the transmitter sensitivity, but I'd advise against it; these patients want more perception of sound from that side, not less.