



CortiCap
In Partnership with Greentek

Application Guide

For Adult, Child, and Newborn
sizes of the CortiCap disposable
EEG electrode cap.



CortiCare Inc.
Carlsbad, CA
corticare.com

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CortiCap™ Recommended Application Process Step-by-Step

1. Remove the CortiCap and cable set from the packaging.



2. Orient the CortiCap so that the Front and Back markers on the top of the cap correspond with the front and back of the patient's head.



3. Apply the front of the CortiCap to the forehead and pull the back of the cap over the back of the patient's head.

4. Ensure that the patient's ears go into the ear holes of the cap.
5. Pull both ends of the chin strap down and under the patient's chin.
6. Velcro the chin strap under the chin ensuring that the cap is snug but not too tight.
7. Position the front of the CortiCap so that the edge of the cap is just above the eyebrows.



8. Double-check the ear holes so they are even up and down in relationship to the ears.

9. Plug the touch-proof electrodes of the cable set into the corresponding labeled port on the headbox.



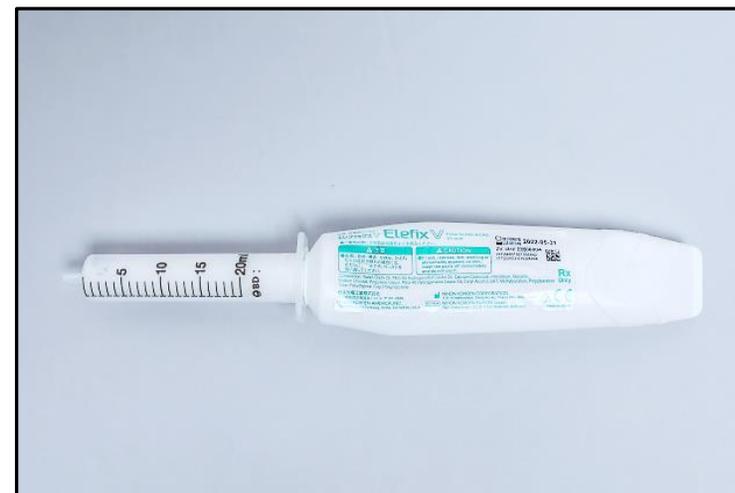
10. The two M-Quick connectors for the Adult/ Child cable set click into the corresponding connections that exit the back of the cap, white to white and gray to gray. These two connectors are magnetized and clip together. The Newborn cap has one gray M-Quick connector that connects to a gray cable set. **Note:** The cable set for the Newborn cap is different than the one used for the Adult/ Child cap. The Adult/ Child cap will look like the image on the left and the Newborn cap will look like the image on the right.



11. The electrode prep process can now begin.



12. The electrode prep for the Adult, Child, and Newborn cap follows the same process described below. Fill the syringe with the recommended conductive media. For all Routine, LTM, and Ambulatory recordings we recommend Elefix V.



13. Dip the cotton tip applicator into the WavePrep. Select an electrode to prep. Insert the cotton tip applicator into the hole of the cap material next to the electrode site. Place your finger on the opposite side of the electrode. Gently rub back and forth under the electrode site while holding the applicator at a 30-degree angle. Placing a finger on the other side of the electrode will prevent you from prepping beyond the electrode site.

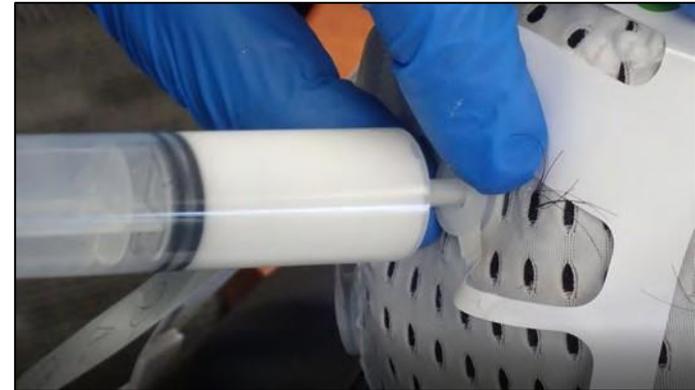


14. **Note:** Depending on the equipment used the Reference and the Ground electrode may need to be prepped first to achieve impedances less than 10K ohms.

15. **VERY IMPORTANT:** Once the site has been prepped, keep the applicator under the cap and push the applicator just beyond the electrode. Swipe the applicator 90 degrees to one side and remove the applicator. This will move the hair out from under the electrode. Ensure the hair has been removed by looking through the top of the electrode. If you cannot see the patient's skin, repeat the swiping process in both directions.

16. Once skin is visible through the top of the electrode, insert the slip tip syringe in through the top of the electrode.

17. Inject the appropriate conductive cream until the electrode elevates off the surface of the scalp.



18. Gently push down on the electrode until a small amount of conductive cream appears through the top of the electrode.
19. Repeat steps 13 through 18 until all the impedances are less than 10K ohms.

CortiCap Disconnect

1. For all recordings setup with Elefix V as the conductive cream, use the following process.
2. Disconnect both M Connectors from the cap.
3. Undo the Velcro chin strap.
4. Start at the front of the CortiCap, gently lift the edge of the cap off the patient's forehead.
5. Continue to pull the cap towards the back of the head until it has been removed from the patient's head.
6. Wash the patient's hair with a warm wet cloth until all the conductive cream has been removed.
7. Once the CortiCap is removed, place it in the trash.
8. Keep the M Connector cable set.

Tips and Tricks

1. The impedances will not go below 10K ohms.
 - a. In this case there is usually hair build-up under the electrode. Insert the cotton tip applicator into the top of the electrode. Gently push down and to the right and left of the edge of the electrode. This will push the hair out from under the electrode. Use a new cotton tip applicator with WavePrep to prep the skin once more. This can be done through the top of the electrode or from the side of the electrode. Then inject more conductive cream. The impedances should fall below 10K Ohms.
2. Low impedances did not last for longer than 6 hours.
 - a. If artifact appears within 6 hours of setup this is usually related to the amount of conductive cream in the cup. Upon setup ensure the electrode has enough cream in the electrode cup to elevate the cup off the scalp. Add more conductive cream to the electrode cup.
 - b. If the addition of the conductive cream does not resolve the artifact, ensure all the hair is swiped out from under the electrode and prepped appropriately.
3. The patient is disconnecting the cap from the cable set.
 - a. Tape the two M connectors together with medical tape.
4. An electrode and the homologous electrode need to be moved from the intended 10-20 location.
 - a. All the electrodes on the cap can be moved from their original position. Hold the mesh cap material with one hand and gently pull the electrode out. Measure in the direction the electrode needs to be moved. Stretch the cap material at the hole the electrode should be. Slightly angle the electrode and push it into the new location. Ensure that the homologue electrode is moved in the same direction and distance. **Note:** Each cap hole is about 1 centimeter apart from one another.

Recommended Supplies

These are the recommended supplies referenced in this guide. These products have gone through field testing with the CortiCap. Other products may be used; however, results may be less satisfactory.

Conductive Cream:

Elefix V, 180 g Tube (Nihon-Kohden)

Skin Prep:

WavePrep EEG Skin Prep, 8.5 g Cup
Cotton Tip Applicators

Syringe:

BD Liquid Dispensing Slip Tip Syringe 20 mL (used to add conductive cream to electrode cups)

ADDITIONAL RESOURCES AVAILABLE AT:

WWW.CORTICARE.COM/CORTICAP/

FREQUENTLY ASKED QUESTIONS:

[HTTPS://CORTICARE.COM/CORTICAP-FAQ/](https://CORTICARE.COM/CORTICAP-FAQ/)

APPLICATION VIDEO:



LONG HAIR APPLICATION:



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Elefix is a trademark of Nihon-Kohden Corp.

WavePrep is a trademark of Hydrodot, Inc.

BD is Becton Dickenson and Company.