

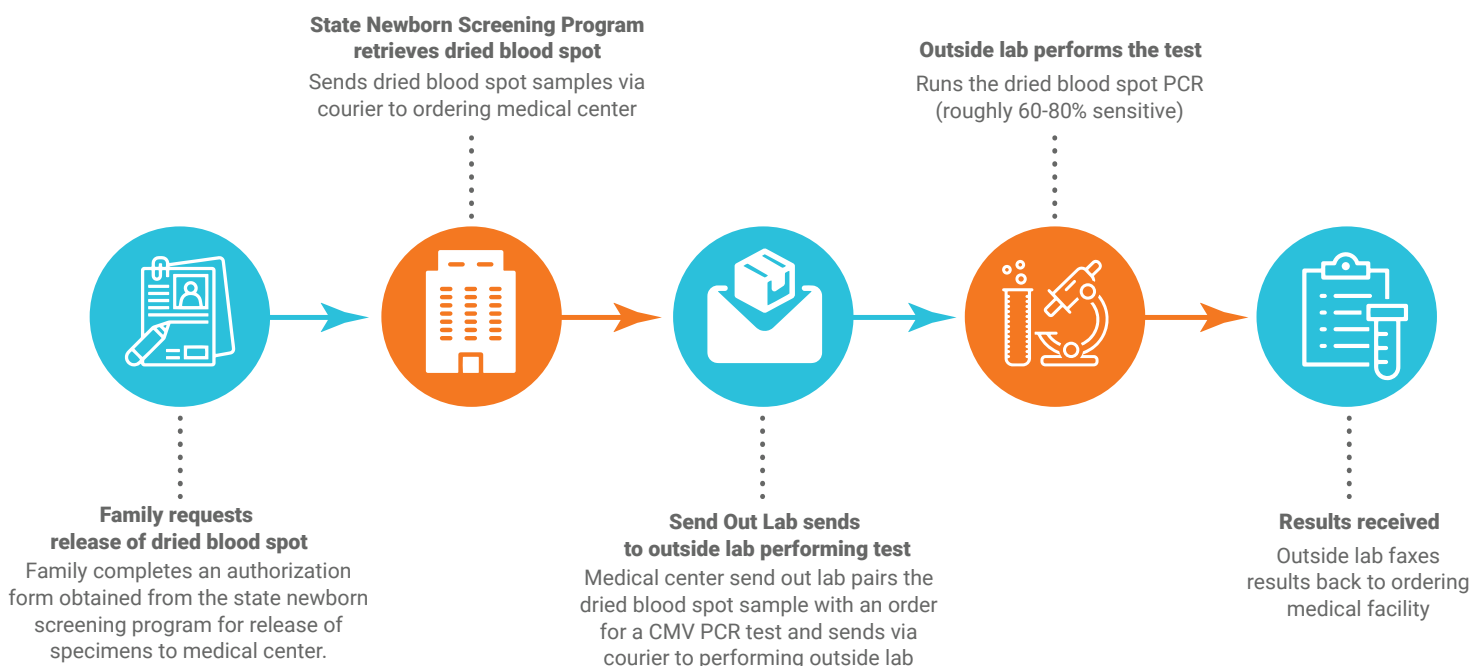
# DRIED BLOOD SPOT TESTING FOR CYTOMEGALOVIRUS

To test a child for congenital cytomegalovirus after they are older than 21 days, it is necessary to test their dried blood spot (DBS). Testing their DBS allows doctors to know if the virus was present in their blood when they were first born.

## What is a dried blood spot?

Most children born in the US and Canada have newborn screening performed, which include a blood test for metabolic conditions. This test is performed at the hospital using a needle to prick a baby's heel. Blood from the heel is collected on a card that is then sent to a lab for testing. This is called the "dried blood spot" or DBS. Many states will save the remainder of the dried blood spot, left over from the newborn testing, for future use. Sometimes, families can request this remaining dried blood spot to be tested for CMV.

## Process for testing dried blood spot for CMV



## Locating your child's dried blood spot

- Each state saves dried blood spots for a different length of time. Some states only save the spot for a few months and some keep for many years before it is destroyed.
- To find out if your child's dried blood spot is still being saved, call your state Newborn Screening Program to inquire.

## Getting access to the dried blood spot for testing

- Ask your state Newborn Screening Program what paperwork is needed to release your child's dried blood spot sample for testing. Many states require a release of information and proof of identification to be sent by the parents first. The process is different in each state.
- Check with your child's doctor about where the sample should be sent from the state Newborn Screening program. It usually is sent first to your child's doctor's health system, and then is sent on to another lab that performs the testing.
- When filling out the release for information form, be sure to specify how much dried blood spot you would like to be sent to the testing lab. Most labs can perform the testing with three hole punches from the card.

## Testing and Results

- Your child's doctor will need to place an order for a "Dried Blood Spot CMV PCR." Prices for the test may vary. This test may be covered by your child's insurance.
- Once the Newborn Screening Program sends the dried blood spot to the hospital lab, the hospital lab will pair the sample with the order for the testing and then send it on to a specialty lab where the testing will be performed.
- There are at least five labs that perform dried blood spot testing for CMV in the United States: ARUP, The University of Washington, Revvity, Perkin Elmer, and the University of Minnesota
- Results are usually available within two weeks after the specialty lab receives the sample. These results will be faxed or sent electronically back to the doctor who ordered the test.

## Interpreting the Results

- **Positive result:** If CMV, was found on your child's dried blood spot, and they have signs or symptoms concerning for congenital CMV, a positive result confirms the diagnosis of congenital CMV.
- **Negative result:** No virus was found on the dried blood spot sample. This can mean either that your child does not have congenital CMV (that there was no virus in her/his system at birth) or that the virus just wasn't detected in that drop of blood. When a child who has congenital CMV has a negative dried blood spot result, this is called a false negative. Dried blood spot CMV PCR testing is about 60-80% sensitive, depending on the lab performing the test. This means that the test detects a case of congenital CMV about 60-80% of the time, or conversely, that the test misses true cases of congenital CMV about 20-40% of the time. A negative results on a dried blood spot PCR does not rule out congenital CMV definitively.

## Laboratories performing CMV PCR on Dried Blood Spot

**University of Washington Virology Lab**  
<https://depts.washington.edu/uwviro/order/>  
Email: [commserv@uw.edu](mailto:commserv@uw.edu)  
1959 NE Pacific Street, room NW220  
Seattle, WA 98195  
Tel: 206.520.4600 or 800.713.5198

**Revvity Omics, Inc**  
[www.revvityomics.com](http://www.revvityomics.com)  
Email: [Genomics@revvity.com](mailto:Genomics@revvity.com)  
Address: 250 Industry drive,  
Pittsburgh, PA 15275  
1-866-354-2910

**ARUP Laboratories**  
<https://ltd.aruplab.com/Tests/Pub/0060040>  
500 Chipeta Way  
Salt Lake City, UT 84108-1221  
1-801-583-2787  
1-800-522-2706 (fax)

**PerkinElmer Genetics, Inc.**  
90 Emerson Lane, Abele  
Business Park  
Bridgeville, PA 15017  
Telephone 1-866-463-6436  
FAX 412-220-0784

**University of Minnesota - Schleiss lab**  
<https://cmv.umn.edu/dried-blood-spot-testing>  
Email: [schleiss@umn.edu](mailto:schleiss@umn.edu)  
2001 6th Street, SE  
3-438 MTRF  
University of Minnesota  
Minneapolis, MN 55455  
612-625-9642 lab  
612-626-9924 (fax)

