#### Genetic Counseling Resources for Hemoglobin Disorders and Traits

#### Western Washington

Swedish Medical Center Perinatal Medicine 1229 Madison St. Nordstrom Tower, Suite 750 Seattle, WA 98104 Phone: (206)386-2101 Fax: (206)386-6715

Eastside Maternal Fetal Medicine 1110 112<sup>th</sup> Ave NE, Suite 100 **Bellevue**, WA 98004 Phone: (425) 688-8111 Fax: (425) 688-8110

Evergreen Hospital Medical Center Maternal-Fetal Medicine 12333 NE 130<sup>th</sup> Ln, Tan 240 Kirkland, WA 98034 Phone: (425) 899-2200 Fax: (425) 889-2210

Valley Medical Center Maternal Fetal Medicine 4033 Talbot Road S, #450 **Renton**, WA 98055 Phone: (425)656-5520 Fax: (425)656-5363

Seattle Children's Hospital Medical Genetics Clinic 4800 Sand Point Way NE/ PO Box 5371/A7937 Seattle, WA 98105-0371 Phone: (206) 987-2665 Fax: (206) 987-2495

Columbia Health Center 4400 - 37th Avenue South Seattle, WA 98118 Phone: (206) 296-4650 Fax: (206) 205-0580

Group Health Cooperative Genetic Services

201 16<sup>th</sup> Ave E CMB-5 Seattle, WA 98112 Phone: (206) 326-2525

Fax: (206) 326-2010

(For Group Health members only)

Odessa Brown Sickle Cell Clinic 2101 E. Yesler Way Seattle, WA 98122 Phone: (206) 987-7232 Fax: (206) 329-9764 UW Medical Center <u>Medical Genetics Clinic</u> 1959 NE Pacific Street/ Box 357720 **Seattle**, WA 98195-7720 Phone: (206) 598-4030 Fax: (206) 598-3269

UW Medical Center Prenatal Diagnosis Clinic 1959 NE Pacific Street/ Box 356159 Seattle, WA 98195 Phone: (206) 598-4072 Fax: (206) 598-2359

Madigan Army Medical Center Medical Genetics 9040 Jackson Ave **Tacoma**, WA 98432 Phone: (253)403-3481 Fax: (253)403-8674 (Services limited to Armed Services personnel and their dependents)

MultiCare Regional Maternal-Fetal Medicine 1105 Division Ave, Suite 201 Tacoma, WA 98405 Phone: (253) 403-9200 Fax: (253) 403-9201

Legacy Salmon Creek Medical Center <u>Maternal-Fetal Medicine</u> 2101 NE 139th St. Suite 260 **Vancouver**, WA 98686 Phone: (360)487-2870 Fax: (360)487-2879

#### Eastern Washington

Kadlec Medical Center 712 Swift Blvd, Suite 1 **Richland**, WA 99352 Phone: (509) 942-2821 Fax: (509) 943-1497

<u>Deaconess Perinatal Services</u> 800 W 5th Ave **Spokane**, WA 99204 Phone: (509) 473-3690 Fax: (509) 473-3692

Central Washington Genetics Program Children's Village 3801 Kern Rd Yakima, WA 98902 Phone: (509) 574-3260 Fax: (509) 574-3210 Providence Genetics Clinic 105 W 8th Ave, Suite 454 **Spokane**, WA 99204 Phone: (509)474-3810 Fax: (509)474-3811

Pullman Regional HospitalThe Center for Genetics1620 SE Summit CtPullman, WA 99163Phone: (509) 332-5106Fax: (509) 334-5723

Wenatchee Valley Medical Center ATTN: Genetics 820 N Chelan Ave Wenatchee, WA 98801 Phone: (509) 667-7538 Fax: (509) 664-3417

#### Oregon

Kaiser Permanente Department of Genetics 3325 N. Interstate Ave. **Portland**, OR 97227 Phone: (503) 331-6593 (For Kaiser members only)

Legacy Emanuel Medical Center <u>Matemal-Fetal Medicine</u> 300 N. Graham Street, Ste 100 **Portland**, OR 97227 Phone: (503) 413-1122 Fax: (503)413-4238

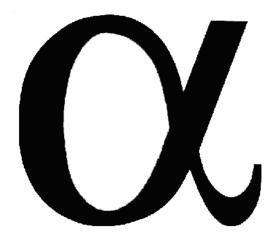
<u>Northwest Perinatal Center</u> 9701 SW Barnes Road, Ste 299 **Portland**, OR 97225 Phone: (503) 297-3660 Fax: (503)297-7637

Oregon Health Sciences University Prenatal Diagnosis and Counseling 3181 SW Sam Jackson Park Road **Portland**, OR 97239 Phone: (503) 418-4200

Center for Genetics & Maternal – Fetal Medicine 3355 Riverbend Drive, Suite 210 Springfield, OR 97477 Phone: (541) 349-7600

Revised January 2013

# Alpha Thalassemia



# Information for parents about hemoglobin Bart's and alpha thalassemia

Washington State Department Health DOH Pub 304-002 Revised January 2014

## What is hemoglobin?

Hemoglobin is the part of blood that carries oxygen to all parts of the body. Genes that we inherit from our parents determine what type of and how much hemoglobin we have.

#### What is alpha thalassemia?

Hemoglobin is made up of many different parts, including alpha globin. Alpha globin is produced by four genes and when any of those genes are not working properly the body makes less hemoglobin. This is called alpha thalassemia and occurs in four different forms, depending on the number of genes not working. One form of alpha thalassemia cannot turn into another kind. Your child will have that form for his or her entire life.

#### Why was my child screened for alpha thalassemia?

The Newborn Screening Program screens all infants born in Washington State for certain disorders, including hemoglobin disorders. A small amount of blood was collected from your infant's heel and sent to the State Laboratory for testing. That testing found a higher than normal level of hemoglobin Bart's, a protein that is made when alpha globin genes are not working properly.

### What happens when one gene for alpha globin is not working?

A person who has one of the four alpha globin genes not working is called a silent carrier. This form of alpha thalassemia does not cause any major changes in the hemoglobin or any health problems.

### What happens when two genes for alpha globin are not working?

A person who has two of the four alpha globin genes not working has alpha thalassemia trait. This form of alpha thalassemia causes only small changes in the hemoglobin and does not cause any health problems.

## If one or two non-working genes for alpha globin do not cause any health problems, why do I need to know that my child has alpha thalassemia?

Although one or two non-working alpha globin genes do not cause any health problems, you and your baby's doctor should know that it can cause a mild anemia (low number of red blood cells). It is also important to know about your child's alpha thalassemia status because future children in your family, or other family members, may be at risk for more serious forms of alpha thalassemia, which are described on the next page. Also, people with the silent carrier form or alpha thalassemia trait can pass the gene(s) to their children.

# What happens when three or four genes for alpha globin are not working?

If a person has three non-working genes, it will result in hemoglobin H disease. Hemoglobin H disease can sometimes cause serious health problems due to moderate or marked anemia and should be followed regularly by a doctor. People with four non-working genes are unable to produce the hemoglobin needed to live. This is called alpha thalassemia major. This is not what your child has. This form causes death in the affected individual before or soon after birth. If your doctor or genetic counselor feels that you are at risk for having a baby with either of these forms of alpha thalassemia, they will provide you with more information.

#### What do I do now?

Your baby's doctor may do more testing on your baby to clarify which form of alpha thalassemia your baby has (whether one or two genes are not working). This will involve drawing a small amount of blood from your baby. It is also recommended that you and your partner have testing done to determine your hemoglobin status. This would provide information on your chances of having a future child with a more serious form of alpha thalassemia. To have this testing done, talk to your health care provider or one of the genetic counselors listed on the back of this pamphlet. You may also want to share this information with the rest of your family. They may be interested in finding out their hemoglobin status as well.

### What can I do if I have more questions?

If you have more questions, you can talk to your child's health care provider or you can contact the Newborn Screening Program using the information below.

Newborn Screening Program 1610 NE 150th Street Shoreline, WA 98155 Phone: (206) 418-5410 Toll Free: 1-866-660-9050 Email: NBS.Prog@doh.wa.gov Internet: www.doh.wa.gov/nbs

