

## PROTOCOL FOR NEWBORN SCREENING RESULT

**Elevated hydroxyacyl carnitine profile (increased 3-OH-C14, -C16, -C18:1, -C18:2 acylcarnitine) associated with Long Chain Hydroxyacyl-CoA Dehydrogenase Deficiency (LCHADD) or Trifunctional Protein Deficiency (TFPD)**

### **Repeat newborn screening result**

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##### **Normal repeat newborn screening result.**

If the first screen showed a markedly elevated level of 3-OH-C16, -C18:1 & -C18:2 a normal second screen result is reassuring BUT this does not rule out LCHADD. Therefore the metabolic physician may want to continue treating the baby as though he/she has LCHADD while awaiting the results of more definitive tests.

If the first screen was only mildly elevated however, the newborn screening increase was probably transient (false positive).

Once the metabolic team has confirmed that the infant does not have LCHADD, it is essential to reassure the family that their baby is well and that they should treat their baby as entirely normal. Many people can be traumatized by a false positive result and counseling may be appropriate. If the metabolic physician remains concerned, however, then he/she will discuss this further with you and may decide to continue with frequent feeds and early intervention if the baby becomes sick. It is important to remember, however, that this does not mean that the baby has LCHADD but only that the metabolic doctor is taking an extra cautious approach until definitive results are available to keep the baby safe and well.

##### **Abnormal repeat newborn screen result.**

An elevated 3-OH-C16, -C18:1 & -C18:2 on the second sample is very suspicious of LCHADD and further evaluation by the metabolic doctor is definitely required. The baby must be treated as though he/she has LCHADD while definitive testing is carried out. See **3-OH-C16, -C18:1 & -C18:2 markedly elevated, probable LCHADD** discussions in first newborn screening result section.