



**Table 2: Fatty Acid Disorders**

| Overall Result | Disorder             | Screening Result | Analyte(s)   | Analyte Result              | Screening Result Note   |
|----------------|----------------------|------------------|--------------|-----------------------------|---|
| Normal         |                      | Normal           |              |                             |   |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C0<br>C3+C16 | Borderline<br>Low or Normal | Possible Fatty Acid Disorder. C0 Slightly Low. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.                                     |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C0<br>C3+C16 | Low<br>Normal               | Possible Fatty Acid Disorder. C0 Low; C3+C16 Normal. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.                               |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C0<br>C3+C16 | Borderline<br>Low           | Possible Fatty Acid Disorder. C0 Slightly Low; C3+C16 Low. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.                         |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C0<br>C3+C16 | Low<br>Low or Normal        | Possible CUD. C0 Low for birthweight less than 1000 grams. Place baby on carnitine immediately. Recommend immediate telephone consultation with a pediatric metabolic specialist. Repeat the newborn screen within 7 days.            |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C0<br>C3+C16 | Low<br>Low                  | Possible CUD. C0 and C3+C16 Low for birthweight less than 1000 grams. Place baby on carnitine immediately. Recommend immediate telephone consultation with a pediatric metabolic specialist. Repeat the newborn screen within 7 days. |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C0<br>C3+C16 | Low<br>Low or Normal        | Possible CUD. C0 Low. Recommend blood sugar, plasma (free and total) carnitine and maternal plasma (free and total) carnitine within 7 days and immediate telephone consultation with a pediatric metabolic specialist.               |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C0<br>C3+C16 | Low<br>Low                  | Possible CUD. C0 and C3+C16 Low. Recommend blood sugar, plasma (free and total) carnitine and maternal plasma (free and total) carnitine within 7 days and immediate telephone consultation with a pediatric metabolic specialist.    |



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| Overall Result | Disorder             | Screening Result | Analyte(s)                            | Analyte Result   | Screening Result Note   |
|----------------|----------------------|------------------|---------------------------------------|--|---|
| Abnormal       | Fatty Acid Disorders | Abnormal         | C0/(C16 +C18)<br>C0                   | Elevated<br>Elevated, Borderline, or<br>Normal                               | Possible CPT1. C0/(C16+C18) Elevated. Recommend plasma carnitine and plasma acylcarnitine profile within 7 days and immediate telephone consultation with a pediatric metabolic specialist.   |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C10:2                                 | Elevated   | Possible DE-RED. C10:2 Elevated. Recommend plasma acylcarnitine profile, plasma quantitative amino acids, plasma carnitine, urine acylglycines, urine organic acids and telephone consultation with a pediatric metabolic specialist within 48 hours. |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C14:1<br>C14<br>C14:1/C2              | Borderline<br>Elevated or Normal<br>Elevated or Normal                       | Possible VLCAD. C14:1 Slightly Elevated. Recommend plasma acylcarnitine profile and plasma (free and total) carnitine within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. DNA report to follow.               |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C14:1<br>C14<br>C14:1/C2              | Elevated<br>Elevated or Normal<br>Elevated or Normal                         | Possible VLCAD. C14:1 Elevated. Recommend plasma acylcarnitine profile and plasma (free and total) carnitine within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. DNA report to follow.                        |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C16<br>C18:1<br>C14<br>(C16+C18:1)/C2 | Borderline<br>Normal<br>Normal<br>Normal                                     | Possible Fatty Acid Disorder. C16 Slightly Elevated; C18:1, C14, and (C16+C18:1)/C2 Normal. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.        |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C16<br>C18:1<br>C14<br>(C16+C18:1)/C2 | Borderline<br>Elevated or Normal<br>Elevated or Normal<br>Elevated or Normal | Possible CACT or CPTII. C16 Slightly Elevated. Recommend plasma carnitine, plasma acylcarnitine, and urine organic acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.                                  |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C16<br>C18:1<br>C14<br>(C16+C18:1)/C2 | Elevated<br>Elevated or Normal<br>Elevated or Normal<br>Elevated or Normal   | Possible CACT or CPTII. C16 Elevated. Recommend plasma carnitine, plasma acylcarnitine, and urine organic acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.   |



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| Overall Result | Disorder             | Screening Result | Analyte(s)   | Analyte Result   | Screening Result Note   |
|----------------|----------------------|------------------|--|--|---|
| Abnormal       | Fatty Acid Disorders | Abnormal         | C16-OH<br>C16:1-OH<br>C18-OH<br>C18:1-OH<br>C18:2-OH | Elevated<br>Elevated or Normal<br>Elevated or Normal<br>Elevated or Normal<br>Elevated or Normal   | Possible LCHAD or TFP. C16-OH, C16:1-OH, C18-OH, C18:1-OH, and C18:2-OH analyzed to determine result. Recommend plasma acylcarnitine profile, urine organic acids and plasma carnitine profile (free and total carnitine) within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C4<br>C4/C2  | Borderline<br>Elevated   | Possible Fatty Acid Disorder. C4 Slightly Elevated; C4/C2 Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.  |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C4<br>C4/C2  | Elevated<br>Normal   | Possible Fatty Acid Disorder. C4 Elevated; C4/C2 Normal. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.   |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C4<br>C4/C2  | Elevated<br>Elevated   | Possible SCAD or IBG. C4 and C4/C2 Elevated. Recommend plasma acylcarnitine profile, urine organic acids, urine acylglycines and telephone consultation with a pediatric metabolic specialist within 48 hours.  |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C4<br>C5   | Elevated or Borderline<br>Elevated or Borderline   | Possible GA2. C4 and C5 analyzed to determine result. Recommend plasma acylcarnitine profile, urine organic acids, and urine acylglycine analysis within 24 hours and immediate telephone consultation with a pediatric metabolic specialist.   |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C8<br>C6<br>C10:1<br>C10<br>C8/C2                    | Borderline<br>Elevated or Normal<br>Elevated or Normal<br>Elevated or Normal<br>Elevated or Normal | Possible MCAD or MCAT. C8 Slightly Elevated. Recommend plasma acylcarnitine profile, plasma carnitine levels, urine acylglycines, and urine organic acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. DNA report to follow.   |
| Abnormal       | Fatty Acid Disorders | Abnormal         | C8<br>C6<br>C10:1<br>C10<br>C8/C2                    | Elevated<br>Elevated or Normal<br>Elevated or Normal<br>Elevated or Normal<br>Elevated or Normal   | Possible MCAD or MCAT. C8 Elevated. Recommend plasma acylcarnitine profile, plasma carnitine levels, urine acylglycines, and urine organic acids within 24 hours and immediate telephone consultation with a pediatric metabolic specialist. DNA report to follow.  |



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| Overall Result | Disorder             | Screening Result | Analyte(s) | Analyte Result | Screening Result Note  |
|----------------|----------------------|------------------|------------|----------------|--|
| Abnormal       | Fatty Acid Disorders | Non-specific     |            |                | Elevation(s) in a non-diagnostic pattern. Repeat the newborn screen within 7 days. |
| Abnormal       | Fatty Acid Disorders | TPN              |            |                | Possible TPN. Repeat the newborn screen when TPN is discontinued.                  |
| Normal         | Fatty Acid Disorders | Revised Result   |            |                | free text  |
| Abnormal       | Fatty Acid Disorders | Revised Result   |            |                | free text  |
| Unsatisfactory | Fatty Acid Disorders | Revised Result   |            |                | free text  |