

# Dried blood analysis + Nightingale Kit

## CoreMetabolomics biomarker list

### Biomarkers

|                                                     |        |                                                |        |                                                                                   |        |
|-----------------------------------------------------|--------|------------------------------------------------|--------|-----------------------------------------------------------------------------------|--------|
| <b>Cholesterol</b>                                  |        | <b>Total lipids</b>                            |        | <b>Fatty acids (continued)</b>                                                    |        |
| Total cholesterol                                   | mmol/L | Total lipids in lipoprotein particles          | mmol/L | Linoleic acid                                                                     | mmol/L |
| Total cholesterol minus HDL-C                       | mmol/L | Total lipids in VLDL                           | mmol/L | Docosahexaenoic acid                                                              | mmol/L |
| Remnant cholesterol (non-HDL, non-LDL -cholesterol) | mmol/L | Total lipids in LDL                            | mmol/L | <b>Fatty acid ratios</b>                                                          |        |
| VLDL cholesterol                                    | mmol/L | Total lipids in HDL                            | mmol/L | Ratio of omega-3 fatty acids to total fatty acids                                 | %      |
| Clinical LDL cholesterol                            | mmol/L | <b>Lipoprotein particle concentrations</b>     |        | Ratio of omega-6 fatty acids to total fatty acids                                 | %      |
| LDL cholesterol                                     | mmol/L | Total concentration of lipoprotein particles   | mmol/L | Ratio of polyunsaturated fatty acids to total fatty acids                         | %      |
| HDL cholesterol                                     | mmol/L | Concentration of VLDL particles                |        | Ratio of monounsaturated fatty acids to total fatty acids                         | %      |
| <b>Triglycerides</b>                                |        | Concentration of LDL particles                 | mmol/L | Ratio of saturated fatty acids to total fatty acids                               | %      |
| Total triglycerides                                 | mmol/L | Concentration of HDL particles                 | mmol/L | Ratio of linoleic acid to total fatty acids                                       | %      |
| Triglycerides in VLDL                               | mmol/L | <b>Other lipids</b>                            |        | Ratio of docosahexaenoic acid to total fatty acids                                | %      |
| Triglycerides in LDL                                | mmol/L | Phosphoglycerides                              | mmol/L | Ratio of polyunsaturated fatty acids to monounsaturated fatty acids               | ratio  |
| Triglycerides in HDL                                | mmol/L | Ratio of triglycerides to phosphoglycerides    | ratio  | Ratio of omega-6 fatty acids to omega-3 fatty acids                               | ratio  |
| <b>Phospholipids</b>                                |        | Total cholines                                 | mmol/L | <b>Amino acids</b>                                                                |        |
| Total phospholipids in lipoprotein particles        | mmol/L | Phosphatidylcholines                           | mmol/L | Alanine                                                                           | mmol/L |
| Phospholipids in VLDL                               | mmol/L | Sphingomyelins                                 | mmol/L | <b>Branched-chain amino acids</b>                                                 |        |
| Phospholipids in LDL                                | mmol/L | <b>Apolipoproteins</b>                         |        | Total concentration of branched-chain amino acids (leucine + isoleucine + valine) | mmol/L |
| Phospholipids in HDL                                | mmol/L | Apolipoprotein B                               | g/L    | Isoleucine                                                                        | mmol/L |
| <b>Cholesteryl esters</b>                           |        | Apolipoprotein A1                              | g/L    | Leucine                                                                           | mmol/L |
| Total esterified cholesterol                        | mmol/L | Ratio of apolipoprotein B to apolipoprotein A1 | ratio  | Valine                                                                            | mmol/L |
| Cholesteryl esters in VLDL                          | mmol/L | <b>Fatty acids</b>                             |        | <b>Aromatic amino acids</b>                                                       |        |
| Cholesteryl esters in LDL                           | mmol/L | Total fatty acids                              | mmol/L | Tyrosine                                                                          | mmol/L |
| Cholesteryl esters in HDL                           | mmol/L | Degree of unsaturation                         | degree |                                                                                   |        |
| <b>Free cholesterol</b>                             |        | Omega-3 fatty acids                            | mmol/L |                                                                                   |        |
| Total free cholesterol                              | mmol/L | Omega-6 fatty acids                            | mmol/L |                                                                                   |        |
| Free cholesterol in VLDL                            | mmol/L | Polyunsaturated fatty acids                    | mmol/L |                                                                                   |        |
| Free cholesterol in LDL                             | mmol/L | Monounsaturated fatty acids                    | mmol/L |                                                                                   |        |
| Free cholesterol in HDL                             | mmol/L | Saturated fatty acids                          | mmol/L |                                                                                   |        |

**Ketone bodies**

3-Hydroxybutyrate

mmol/L

**Fluid balance**

Creatinine

µmol/L

**Inflammation**

Glycoprotein acetyls

mmol/L

**Lipoprotein subclasses**

**Very Large VLDL (average diameter 64 nm)**

Cholesterol in very large VLDL

mmol/L

Total lipids in very large VLDL

mmol/L

Triglycerides in very large VLDL

mmol/L

**Large VLDL (average diameter 53.6 nm)**

Cholesterol in large VLDL

mmol/L

Total lipids in large VLDL

mmol/L

Triglycerides in large VLDL

mmol/L

**Medium VLDL (average diameter 44.5 nm)**

Cholesterol in medium VLDL

mmol/L

Total lipids in medium VLDL

mmol/L

Triglycerides in medium VLDL

mmol/L

**Small VLDL (average diameter 36.8 nm)**

Cholesterol in small VLDL

mmol/L

Total lipids in small VLDL

mmol/L

Triglycerides in small VLDL

mmol/L

**Very small VLDL (average diameter 31.3 nm)**

Cholesterol in very small VLDL

mmol/L

Total lipids in very small VLDL

mmol/L

Triglycerides in very small VLDL

mmol/L

**IDL (average diameter 28.6 nm)**

Cholesterol in IDL

mmol/L

Total lipids in IDL

mmol/L

Triglycerides in IDL

mmol/L

**Large LDL (average diameter 25.5 nm)**

Cholesterol in large LDL

mmol/L

Total lipids in large LDL

mmol/L

Triglycerides in large LDL

mmol/L

**Medium LDL (average diameter 23 nm)**

Cholesterol in medium LDL

mmol/L

Total lipids in medium LDL

mmol/L

Triglycerides in medium LDL

mmol/L

**Small LDL (average diameter 18.7 nm)**

Cholesterol in small LDL

mmol/L

Total lipids in small LDL

mmol/L

Triglycerides in small LDL

mmol/L

**Very large HDL (average diameter 14.3 nm)**

Cholesterol in very large HDL

mmol/L

Total lipids in very large HDL

mmol/L

Triglycerides in very large HDL

mmol/L

**Large HDL (average diameter 12.1 nm)**

Cholesterol in large HDL

mmol/L

Total lipids in large HDL

mmol/L

Triglycerides in large HDL

mmol/L

**Medium HDL (average diameter 10.9 nm)**

Cholesterol in medium HDL

mmol/L

Total lipids in medium HDL

mmol/L

Triglycerides in medium HDL

mmol/L

**Small HDL (average diameter 8.7 nm)**

Cholesterol in small HDL

mmol/L

Total lipids in small HDL

mmol/L

Triglycerides in small HDL

mmol/L

**Glycated hemoglobin**

**Available as an additional service**

Glycated hemoglobin (HbA1c)

mmol/mol

All listed biomarkers are available for dried blood samples collected from Nightingale Health's self-collection kit. For Research Use Only. Not for use in diagnostic procedures.