

OmegaCheck™ Report Component Summaries

This information is provided for educational purposes.

OmegaCheck™

Omega-3 and omega-6 fatty acids are polyunsaturated long chain fatty acids (PUFA) required by the body for proper functioning, normal growth and the formation of neural synapses and cellular membranes. Omega-3 and -6 fatty acids are considered “essential” and obtained primarily from dietary sources.

Three of the most important omega-3 fatty acids are eicosapentaenoic acid (EPA), docosapentaenoic acid (DPA) and docosahexaenoic acid (DHA). Omega-3 fatty acids are primarily obtained from food sources, such as oily fish. They have antioxidant (1), anti-inflammatory (2) and anti-thrombotic (3) effects, and can help to reduce triglyceride levels (4-6). Two of the most important omega-6 fatty acids are arachidonic acid (AA) and linoleic acid (LA). Omega-6 fatty acids are obtained from animal sources and plant oils, and have pro-inflammatory (2,7) and pro-thrombotic (7) properties at high levels.

Clinical Significance

- Consumption of omega-3 fatty acids reduces the occurrence of major acute cardiac events in healthy individuals or patients with cardiovascular risk factors or who have cardiovascular disease (8-14).
- Consumption of omega-3 fatty acids leads to a reduction in triglycerides (4-6) and non-HDL (6), as well as Lp-PLA2 levels (6).
- A high intake of omega-6 fatty acid precursors can interfere with the absorption of omega-3 fatty acids (8).
- The mean omega-6:omega-3 ratio of the standard American diet is approximately 10:1 (8). A diet with an omega-6:omega-3 fatty acid ratio of 4:1 or less may reduce total mortality up to 70% over 2 years (11).

Treatment Considerations – *These treatment considerations are for educational purposes only. Specific treatment plans should be provided and reviewed by the treating practitioner.*

- **Assess dietary intake of omega-3 and omega-6 fatty acids** – Dietary sources of omega-3 fatty acids include fatty fishes, such as salmon or sardines, nuts and plant oils. Foods high in omega-6 fatty acids include red meat, poultry, eggs, plant oils, and nuts.
- **Consider omega-3 fatty acid supplementation** – If currently taking, consider adjusting dosage and retest in 1-2 months.
- **Assess lifestyle habits** – Consider diet/exercise/weight reduction efforts if appropriate.

OmegaCheck™ References

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