

Studies have found that low omega-3 blood levels are related to depression. It is yet unclear whether there is a relation between low omega-3 blood levels and a depression that is in remission or an anxiety disorder. This study investigates the relationship between omega-3 and omega-6 fatty acids and the presence of a depression or anxiety disorder and the characteristics of these disorders. We used data from the Netherlands Study of Depression and Anxiety. In total the following numbers of participants were included in the study: 304 patients with a depression disorder at that moment, 548 patients with an anxiety disorder at that moment, 529 patients with both a depressive and anxiety disorder at that moment, 897 patients that are in remission from their depressive and/or anxiety disorder and 634 participants without a depressive or anxiety disorder at that moment or ever in their life (the mentally healthy participants). Characteristics of depression and anxiety that were examined were severity, subtype, age at first episode of depression or anxiety, the duration of the symptoms and the use of antidepressants. For the fatty acids measured in blood plasma, both the absolute and relative measures (compared to the total fatty acid levels) are used. The results show that, compared to the healthy participants, the patients with both disorder and the patients with a depressive disorder have lower omega-3 blood levels. Omega-6 levels are not different between the groups. Also no differences were found between the patients in remission and the healthy participants. In the group of participants with a current depressive disorder, low omega-3 blood levels were related to the severity of the depression. Fatty acids were not related anxiety alone. It can be concluded that patients with a depressive disorder at the moment (especially in combination with an anxiety disorder) have lower omega-3 blood levels than healthy participants and that no relation is found with omega-6.