

# 4~8 歲過動兒與正常兒童飲食攝取之比較

## Dietary Intakes of 4~8 Years Old Children with Attention -deficit Hyperactivity Disorder

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### 摘要

根據生物精神醫學的研究，過動兒之發生可能與其腦部微細功能損傷有關，而腦部功能與飲食亦具有密切的相關性。例如：飲食中色胺酸、必需脂肪酸、維生素或礦物質攝取不足、過量攝取加工食品中的人工色素以及香料等。另外，過動兒之發生亦可能與精緻糖類或飲料之過度攝取、或者是的鉛(lead)或汞等重金屬中毒有關。因此，明確兒童的行為異常與營養素之間的相關性對於過動兒形成因素之闡明及症狀之改善是目前非常重要的研究課題。本計畫主要是利用飲食歷史以及飲食頻率問卷調查、二十四小時回憶與三天飲食記錄等方法，調查 20 位過動兒與 32 位正常兒童飲食型態的差異性。調查結果發現，過動兒之熱量與營養素攝取狀況與正常兒童大致相同，只有必需脂肪酸之亞麻油酸以及次亞麻油酸之攝取量有明顯不足的現象。由此可知，必需脂肪酸的攝取量不足可能與過動兒之形成有關。但是，是否只是單純性的攝取不足或者是與過動兒體內脂肪酸代謝的問題有關，則有待以後的研究進一步地查證。

### Abstract

According to the research on biological psychology, the causes of childhood hyperactivity (attention deficit-hyperactivity disorder, ADHD) may be related to the damage of microscopical functions in the brain. It is also believed that dietary factors could influence the functions of the brain, such as low protein diets, the deficiencies of tryptophan, essential fatty acids, vitamins or minerals, or the excessive intake of artificial colors and flavors. In addition, dietary sugar and heavy metals, such as lead or mercury, have been reported to be associated with hyperactivity and other behavioral problems in children. Therefore, it is very important to investigate nutrient intake of hyperactive children for helping the medical treatment. By stratified sampling method, twenty and thirty two subjects were selected respectively from hyperactive children and normal children aged four to eight years in this study. The dietary history questionnaire, dietary frequency questionnaire, twenty four-hour dietary recall and three-day dietary record were used to investigate the differences of nutrient intake between hyperactive children and normal children. It was found that essential fatty acid intakes including linoleic and linolenic acid for hyperactive children was significantly less than that of normal children. However, the intake of other nutrients showed no significant differences between hyperactive children and normal children. The relationship between

essential fatty acids and childhood hyperactivity warrants more investigation in the future.