

Looks delicious? Cerebral blood flow in young adults with eating disorder tendencies on exposure to food pictures

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Abstract

We examined the physiological changes brought on by the sight of foods in people with high eating disorder tendencies relative to normal controls. Graduate students were assessed for eating disorder tendencies using a questionnaire. Functional near-infrared spectroscopy was used to observe participants when five pictures were presented, in five categories: popular food (fried chicken), non-popular food (Japanese simmered dishes), inedible object (screw), comfortable animal (rabbit), and uncomfortable animal (cockroach). Most participants oxyhemoglobin density was found to be different in response to two pictures (fried chicken and cockroach). This indicates that this level of cerebral blood flow corresponds to unpleasant feelings. However, students with higher eating disorder tendencies showed high-level oxyhemoglobin density in the same channel, indicating discomfort, in response to popular food, neutral objects, and the uncomfortable animal. Our study implies the attitudes toward foods totally differ at cognition in people with high eating disorder tendencies compared with healthy people.