

Interventions to Improve Eating Experiences

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Abstract

Loss of smell can significantly reduce the ability to taste, which may decrease appetite and lower motivation to eat. This paper provides a few interventions with the intention of improving eating experiences for individuals with the loss of their sense of smell by enhancing other senses such as sight, touch, and remaining taste perception. Strategies such as improving food presentation, incorporating varied textures, intensifying flavors, and emphasizing nutrient-dense foods can help increase engagement with meals. These various approaches may support better nutrition and overall well-being for individuals experiencing smell impairment.

Interventions to Improve Eating Experiences

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One's sense of smell is intrinsic to their ability to taste. When an individual's perception of flavor begins to decline, food becomes perceived primarily through texture and temperature. This development can significantly reduce the enjoyment in consumption and demotivate one from eating. However, researchers have developed interventions that help to enhance limited taste through emphasizing the effects of food on other senses.

A critical factor in improving eating in those experiencing smell loss is redirecting focus on sensory enhancement, one such sense is sight. Visual perception of a meal and the ambiance of the dining area contributes to stimulating motivation to eat. Certain elements such as lighting have been found to have an effect on meal duration. Soft or warm lighting may imitate a relaxing and calm environment, similar to the sky at dawn or at sunset. The effect might trigger serotonin release and promote an extended meal time, as compared to harsh lights that could trigger discomfort or even nauseating headaches. (Bschaden et al., 2020)

Another visual factor that increases interest is color. Having a variety of colors in a dish or in surroundings can increase cognitive engagement by evoking emotion. Bright colors are eye-catching and thus hold one's attention longer, leading to increased likelihood of the person eating the meal compared to a dish with a bland palette. Certain colors may also be related to the release of neurotransmitters. Warm colors may often stimulate the release of excitatory neurotransmitters such as norepinephrine, dopamine, or acetylcholine; These neurotransmitters can make one energized or increase one's motivation to eat. On the other hand, cool colors may stimulate inhibitory neurotransmitters which emphasize relaxation such as serotonin or GABA. (Blackstock, 2024)

A second important sense related to eating is touch, or one's ability to notice a variety of textures. Textures in a meal can foster interest in eating through sensory engagement. Positive tactile input can help to soothe individuals as a replacement for previously soothing flavors. Discerning between positive and negative sensory experiences may be challenging; however, the distinctions between negative and positive textures are not set in stone. The only way to determine the difference is to question the individual on what they feel stimulated by. Examples of various textures include: chewy, crunchy, soft, flaky, sticky, gelatinous, smooth; texture can also be achieved through shape, such as in the individual grains of rice. Using these textures introduces complexity into a meal through the differences between them, subsequently stimulating engagement and increasing the chances of the individual eating their food.

Despite the absence or limitation of taste as a result of smell loss, individuals still retain the capacity to taste certain flavors. Though these are often limited to basic and mild variations of sweet, salty, bitter, and umami flavors. Fortunately, flavor can be amplified using particular techniques or flavoring items. Existing flavors can be intensified to a more detectable level through marination, roasting or fermentation. MSG and IMP are both umami flavor intensifiers that can be applied as desired to meals to boost flavor. Furthermore, some foods can be detected through the trigeminal nerve which detects chemical irritation rather than genuine flavor, it can detect lemons, vinegar, mustard, garlic, onions and more through chemical compounds. Mustard and garlic contain isothiocyanates and gingerol, producing a burning sensation similar to intense spices. (Cayeux et al., n.d.) While ingredients such as lemons and lime produce acidity that triggers a similar burning response, allowing for the taste to be taken in without assistance from the olfactory system.

While enjoyment contributes immensely to enhancing eating, nutrition is also critical. Smell impairment may cause a reduced or declining appetite in individuals. To counter such limitations one could use foods that contain a concentrated amount of nutrients. Protein rich ingredients such as eggs, dairy, fish, nuts, seeds, and sprouts can provide much needed calories in one's diets while not occupying much space. A majority of healthy fats and nutrient rich grains can be used alternatively throughout meals to provide variety and sufficient calories to maintain wellbeing.

Out of the many intervention techniques available, none in particular are more beneficial than the other. Rather they each provide certain benefits that can enhance eating experiences. Ultimately, age related smell decline triggers many lifestyle changes. It can be incredibly hard to relearn how to manage one's body, however people can continue to live a healthy and hearty life through incorporating the above techniques as they see fit.

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