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What's On the Menu for Your Sensory Diet?

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Joe is sitting at his desk with 20 peers listening to his teacher. While his teacher talks, he is very aware that his sock is wrinkled in his shoe. Since he is uncomfortable, he wiggles his foot and removes his shoe. When he reaches down to rearrange his shoe and sock, he gets mud on his hand from his shoes. His hands immediately begin to feel heavy and itchy so he quickly shakes them and begins rubbing his pants leg. While rubbing his pants he begins to rock slowly back and forth. He begins to focus on what his teacher is saying, showing an interest in the discussion. Suddenly, Mrs. Arnold asks Joe to sit still since he is distracting the other children with his rocking. Joe complies and Mrs. Arnold continues talking. Joe begins to realize that his shirt is pulling up in the back. He begins to

wiggle and scratch at his back and neck focusing on the feeling of his shirt. Not being able to ignore this feeling, Joe also begins to notice other sensations as well. He can feel the air from the fan on his face so he puts his head down to block the air. He begins to think about how much longer he must sit and he starts to make an escape plan.

Joe is challenged by sensory experiences that many of us do not consider. Because of his sensory issues, Joe has difficulty achieving and maintaining a level of alertness that is advantageous to learning. The ability to use sensory information to guide, modify, learn and adapt to the environment is the foundation for the sensory integration theory. One treatment modality that was introduced by Patricia Wilbarger and is part of the sensory integration theory is the use of a sensory diet.

The purpose of a sensory diet is to provide sensory experiences throughout the day in order to help the child maintain a functional level of arousal. Maintaining a functional level of arousal is necessary for learning. Our level of arousal changes frequently throughout the day, usually in response to sensory changes and sensory experiences. It is typical for many people to feel sluggish and less alert in the afternoon. However, as adults we have developed strategies to improve our level of alertness. These strategies are individualized based upon past experiences. Some strategies might be to take a brisk walk, drink a cold beverage, listen to music, do a physical activity or even take a power nap. Whatever the strategy is, we have learned what is successful in order to sustain a level of alertness for completing our job. We have learned self-regulation. It is through self-regulation that a child is able to achieve, maintain and change his level of alertness.

Many children who are challenged by sensory difficulties are unable to self regulate and sustain an appropriate level of alertness. By using a daily sensory diet, a child can sustain a level of alertness that is essential for learning to take place. The sensory diet must be individualized for each child based upon his needs and responses to sensory input. As adults, we have preferences for sensations; likewise, children also have preferences and some activities are more effective than others are. Also, just as our preferences change, so change the preferences of children. It is therefore important that a professional who has knowledge and expertise in the area of sensory integration design the sensory diet. This professional is usually an occupational therapist. The occupational therapist uses knowledge gained from observation and interview to design a daily regimen that will help the child attain and sustain a level of alertness.

The sensory diet contains a selection of activities that can be easily implemented throughout the day in a variety of settings. The sensory diet should be thought of as a "nutritional requirement" for actively engaging in daily tasks. By incorporating sensory experiences in short tasks throughout the day, the child will be more likely to sustain his level of alertness when it is necessary. The activities recommended in the

sensory diet should not be used only when the child becomes agitated or disengaged; rather the activities are designed to keep the child engaged and less agitated throughout the day.

So what does a sensory diet look like? What types of sensory experiences are recommended? Sensory diets should use naturally occurring events in the child's daily routine to infuse with sensory experiences. For instance in the example above, Joe is often challenged with tactile sensations, but his occupational therapist has recognized that deep pressure and proprioceptive activities can help Joe participate in tasks which have a tactile component. Therefore, a sensory diet for him might include some of the following activities: taking the chairs down from the desktops each morning, carrying books to the library, erasing the white board, sweeping the floor, moving furniture. In addition, the therapist can teach Joe's classmates a set of chair or desktop exercises that the teacher can implement prior to beginning a new lesson. These exercises take less than a minute and can help organize and alert most students. These activities can include chair or desk push-ups, "popcorn", therapand activities, body squeezes, hand griper exercises, marching or jumping in place. By strategically placing these activities at regular intervals in Joe's day, he can be more successful with school activities and social interactions.

In order to design an effective sensory diet, knowledge of the types of sensory input is important. Sensory input can be categorized into seven areas: tactile (touch), auditory, proprioceptive (heavy work), vestibular (moving), visual, olfactory, and gustatory (taste).

Tactile activities can include:

- writing letters and numbers in shaving cream
- practicing addition and subtraction problems in sand
- finding shapes hidden in a box of lentils and then sorting
- using hand lotion after washing hands

Auditory activities can include:

- listening to music or environmental sounds
- using headphones to reduce background noise

Proprioceptive experiences are those experiences that use the large muscles in the body and are defined as heavy work. Proprioceptive activities involve pushing and pulling and usually involve a weighted object. It is the job of the proprioceptive system to give the individual a sense of their body and where it is in space. Therefore, following an activity which is high in proprioceptive input, we can often "feel the burn" in

our muscles.

Proprioceptive activities can include:

- moving furniture
- carrying a weighted backpack
- pulling on elastic exercise bands
- performing chair or wall push ups
- carrying a load of books to the library

Vestibular activities involve movement and can include:

- bouncing on a ball prior to math class
- jumping
- vigorously swinging on the playground daily
- spinning
- having a student sit on a wedge or partially inflated beach ball during reading activities

Visual, olfactory and gustatory sensations are those activities that involve the use of the eyes, ears, or taste buds. Sensory diet activities might include:

- using indirect lighting,
- using of a secluded corner for reading,
- sucking on mints or chewing gum, or
- drinking from a narrow straw.

When choosing activities for a sensory diet the practitioner must also be aware that sensory input can be of different intensities and therefore, require longer duration or require more or less frequent input. For instance, chewing bubble gum or sucking liquid through a narrow straw is a less intense input than jogging or doing jumping jacks. Therefore, a student may need to chew gum for a longer period or take frequent drinks from a straw as opposed to going for a jog once a day. The intensity of the sensory input can also determine if the sensory experience has a calming or alerting effect on the child. For instance, swinging in a slow rhythmical pattern can be calming for some, but by increasing the speed and height of the swing action, the activity becomes alerting. In addition to the speed of the input, rhythm is also an important component to the experience. Slow rhythmical movement is predictable and therefore calming, but varying the

rhythm, intensity and volume can be alerting.

The information the practitioner gains through observation of the child and interviews with parents and team members is used to develop an individualized sensory diet. Initially the practitioner will want to observe the child's reaction to the activities and note any changes in the child's behavior. It is important to remember that children will respond differently to sensory activities. What works at home may not work at school and what seems beneficial one day may not work the next week. Therefore, the sensory diet should be consistently monitored and changed according to the child's response and daily input. Close communication between home and school is essential for the sensory diet to be most beneficial.

For additional information on developing sensory diets and appropriate activities for including in a sensory diet, please refer to the following reference list.

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