



EPISODE 31 - IDDSI - Texture Modified Diets

Transcript

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As with many things in health care and medicine, things change. Things evolve. And textures of food is no different. As dietitians, we work closely with a multidisciplinary team which includes Speech Therapists. They have an important role and are the primary discipline that does swallow evaluations and determines what texture of food someone should receive. Choking is a concern as well as aspiration. Aspiration is when someone has trouble swallowing or when stomach contents go up the esophagus and end up in the lungs. That can cause infection, breathing issues and lots of other problems. It's just unsafe so we want to avoid those situations as much as possible.

If you ever get the chance to work with a speech therapist, I highly recommend it. We work closely with them as dietitians and we follow their recommendations when providing nutrition for our patients. I make sure my interns observe speech therapists because it's really important.

[Music and Intro]

Hey there. This episode is about texture modified diets. A topic that just might creep up on the exam and if not, you should absolutely be aware of the information I share in this episode. Whether or not you work with patients, you should have knowledge of this information because you never know when you'll need it or if a loved one will need to follow one of these diets.

I've always worked with texture modified diets but the terminology and the way we deal with texture modifications has changed. So let's start with the terminology. I was really used to and comfortable with terms like puree diets and mechanical soft diets. I learned it in school when doing case studies in my Medical Nutrition Therapy class and also recommended these diets when working as a clinical dietitian. I also would see the Speech Therapist make recommendations using the same terminology. For liquids, I'd read recommendations that would say honey thickened liquids or nectar thickened liquids.

In fact, here's a story for you. When I was the Nutrition Support Dietitian, one of my favorite parts of the job was I taught a weekly nutrition class to the medical students, interns and residents. The absolute best part of working in a teaching facility was all the teaching and I always say, the best way to learn is to teach. So I learned a lot but on top of that, it was super fun. And it's crazy because I see so many doctors now that were once residents and

now they're doctors with their own practice and working in their specialized area of medicine. So incredible. Anyways, I used to make the doctors taste the supplements. I think it's so important to be aware of what you're recommending to people and ordering them to drink. And part of it, just to make things really fun, I'd have them taste the thickened beverages. Sometimes, it was like watching a baby take the first bite of food. Their faces would scrunch up, or one of them would shiver. I would laugh because I get the same way especially when I eat something I don't particularly like.

People have always needed texture modifications either due to chewing or swallowing issues which is called dysphagia. Like I mentioned, aspiration is when food ends up in the airway which of course, we want to avoid. And choking is super dangerous at any stage of life. Also, some people have poor dentition and poor fitting dentures so they might need a texture modification in order to manage the food in their mouth. Remember, the point of chewing and manipulating food in the mouth is to make a bolus. The tongue moves food to the back of the mouth where the molars are and moves food from side to side. The teeth mechanically break down the food into small pieces and this process of chewing, moving food around, and releasing saliva in the mouth forms a bolus which is then swallowed. But if the textures not right for a persons needs, there can be issues with this process which increases the risk of choking or aspiration. And when people have a hard time eating, it increases the risk of developing dehydration and malnutrition. Because if it's hard to eat, it's not enjoyable and ultimately, people might just stop eating altogether - which we don't want.

I mentioned poor dentition as a possible issue but there's other medical conditions too that can affect chewing and swallowing. Things like a stroke, or head or neck injury. Also cancers of the mouth, throat and esophagus can affect eating, and things like dementia, Alzheimers' Disease and cerebral palsy can all contribute to chewing and swallowing problems.

Dentures can be a hard thing. I've had many patients lose their dentures. In the hospital, they might put their dentures on their tray which then comes down to the kitchen where it's washed and sometimes the dentures aren't found before scrapping the food into the trash and washing the trays which is a shame. But other times, especially the elderly, they can misplace their dentures and forget where they put them.

My granny was a very special lady. And I mean special in that she was so special to me and was a part of my heart. But she was also special in that there never has been or ever will be a lady quite like her. She loved to have fun. She loved to party and she loved to take out her dentures and make all the little kids around her scream. So whenever I think of dentures, I think of my granny. Her face would shrink up when she took her teeth out and as a kid, I used to ask her to do it. I thought it was so fascinating and she also looked weird. I'd tell her that and she

loved the compliment. I thought she was magical and had special talents that I didn't have as a kid. She fortunately knew where her dentures were most of the time but when someone loses them, it can really have a huge and negative impact on eating.

So the goal of texture modification, on top of reducing the risk of choking and aspiration is to prevent nutritional deficiencies by making sure the texture is right both for food as well as liquids. Because yes, someone can choke and aspirate on liquids too.

Now, the terminology and the way we modify the texture of food has changed. It's now standardized. And many places have implemented the IDDSI. Yep another acronym to remember but I'm gonna do my best to simplify it for you. IDDSI stands for the International Dysphagia Diet Standardization Initiative. Within the IDDSI, either solid foods, liquids or both might be modified. The IDDSI has levels. So instead of recommending a puree diet, the IDDSI calls it a Level 4 texture modification. It's still basically a puree diet.

Ok. If you look at the levels, it's like a pyramid. I'll put a link in the show notes to the website where you can read more about the IDDSI. But something to keep in mind is the liquids. The thicker the liquid, the higher the risk is of developing dehydration. So it's really important that fluid isn't forgotten. People need fluid. They need adequate hydration especially the elderly who often lose their thirst mechanism. So be sure to keep this in mind when working with patients who need a texture modification for food and beverages.

Something unique about the IDDSI is the testing involved that makes sure the texture meets the standardized requirements. I'm not gonna go over the testing in much detail. For the exam, I think it's important to understand the different levels and the importance of standardizing but I'll mention the test done for each level.

The IDDSI has 2 different pyramids or triangles for the texture modifications. One is for food and the other is for liquid. I'm gonna start with food and with the highest level which is Level 7. This is also a regular diet which means there's no texture modification. It's regular texture. A regular diet. So that means there's no restrictions. The next level is Level 7 Easy to Chew. This level is for people with difficulty chewing hard or chewy foods. Or maybe they have pain with swallowing hard foods. This level still requires the ability to bite and chew soft foods and also requires the ability to form a bolus in the mouth. So good tongue control and ability to move food around in the mouth is necessary for this level. The foods can also have a mixture of consistencies meaning all the foods don't have to be one texture. And the foods should be able to be cut with a fork. So they're soft enough for a fork to cut the food.

The next level is level 6 which also stands for soft and bite-sized. People who have pain or fatigue when chewing would benefit from this level. It's also for people with poor fitting dentures or missing teeth. Foods are soft and they're required to be cut to a specific size of 1.5cm by 1.5cm or smaller. So basically, food should be cut into the size of a dice. The test to make sure the food is the right texture is the fork pressure test which is when the food is pressed with a fork and doesn't regain the original shape.

Moving on to level 5 which is also called Minced and Moist. This is for people who have pain or get too tired to chew food. This level still requires chewing but the food is soft and moist. Small lumps are allowed in the food but the lumps need to be able to be smashed with minimal effort with the tongue. Food must be soft enough to be pressed with a fork - the Fork pressure test but must also pass the Spoon Tilt test which is when food keeps its shape on the spoon and easily slides off the spoon when it's tilted.

Ok. Level 4 is the most common level or at least most familiar diet which is the puree diet. People who need a puree diet have problems biting, chewing, and difficulties making a bolus for swallowing. The texture can't have lumps and should maintain the shape when served. A lot of places will use food molds to help improve the appearance of the food. The fork drop test is done to make sure the food is the right texture. Basically, the food is placed on the fork and should not drip through the teeth of the fork.

So when you look at the IDDSI diagram, you'll see an upside down triangle for food starting with the base of the triangle at the top which is level 7 and the tip of the triangle which is Level 3 which I'll go over in a minute. The triangle next to it is an upright triangle or pyramid and is for liquids. And the top of this triangle is level 4 for liquids which corresponds with Level 4 for food. So the level 4 for liquid is extremely thick liquid and is for people who have a hard time swallowing thin or moderately thin liquids. The liquid is too thick to be consumed through a straw.

And the last texture level for food is level 3 which is a liquidised diet. It's meant for people who struggle with tongue control and can't move food around the mouth to the teeth where it's chewed and eventually formed into a bolus. Chewing isn't required and the food can be sucked through a straw. But unlike Level 4 which is also known as the puree diet, the food is too liquidized when it's a Level 3 so it'll fall through the fork and doesn't keep its shape. The test for this is the Flow Test. This level overlaps with the Liquid Level 3 which is also known as moderately thick liquids or previously known as honey thickened liquids. People receiving Level 3 moderately thick liquids are at risk of dehydration and should at the very least be monitored to make sure they get enough liquids.

The Level 2 liquids are mildly thick and previously called nectar thickened liquids. I still hear it called that even when using the IDDSI terminology. You might hear someone call it Level 2 - nectar thick for example. Both Level 2 and Level 3 can be drank through a straw so they're not too thick where straw drinking isn't possible. And finally, the last level is level 1 which is slightly thick liquids. This level is slightly thicker but again, can easily be drank through a straw and even a bottle nipple. So it's only slightly thicker than the usual consistency of thin liquids. Level 0 is when the person can drink any liquids without risk of choking or aspiration. You may or may not see this even written in the recommendations because if there's no texture modification, the assumption is there's no issues and the person can handle any texture or liquid consistency.

Remember, the dietitian doesn't determine the texture or consistency level. This is the role of the Speech Therapist or Speech Language Pathologist - abbreviated SLP. Our role as dietitians or Food Service managers is to make sure the food we provide is the right consistency and follows the diet order. Some places may prepare all the texture modified foods in-house while others might choose to purchase the foods from a vendor that provides foods already at the right texture and have been tested for accurate consistency. Also, liquids can be purchased already thickened. I've personally found it easiest and that way you know it's the right consistency. The variety of thickened beverages has increased. You can purchase thickened water, thickened coffee and tea, and thickened juices. And I'm sure there will be more and more products available with time because that's what happens. But if the products provided aren't already thickened, there's thickening products available to thicken liquids to the desirable consistency just keep in mind that portion sizes are extremely important. As with everything we learn in dietetics, portion sizes matter. There's a big difference between 1/3 cup of rice and 1 cup of rice for someone with diabetes. There's a difference between a slice of pie and the whole pie for anyone wanting to eat pie. And if the thickening agent says to use a certain amount of the thickening agent for a particular volume of liquid, we have to follow the instructions. Otherwise, the consistency will be off. And I want to mention one more thing.

There's also foods called transitional foods. These foods change texture and consistency and are helpful when teaching people to eat such as pediatric patients or adults who had a health event or a trauma and need to relearn how to eat. For example, a stroke patient. Transitional foods are things like ice cubes. They're a solid but melt into a liquid. Or baby snacks like puffs. They're a solid but when they're in the mouth, they get soft. They almost melt. Sometimes we call them meltables. These foods can get stuck on their little hands and face.

When I was around maybe 7 or 8 years old, my grandpa had a stroke. I had no idea what that meant except everyone around me was very sad and crying. He survived the stroke but had to relearn basic life skills. We also called these ADL's or Activities of Daily Living. Simple things like how to eat again and how to walk again. We had

puzzles at home which were the little kid puzzles that have wood pieces and a little peg that sticks out of the piece so kids can hold onto it when trying to solve the puzzle. My mom gathered our puzzles because my sister and I didn't play with them anymore and we went to my grandparents house to bring them to my grandpa. I didn't have a clue why but inside I thought it was so weird that my grandpa needed our puzzles. I remember him doing puzzles with us without any problems but now he needed the puzzles? So confusing for a kid. I asked my mom who was a nurse why we needed to give grandpa the puzzles. She said he needed to relearn basic skills and tasks which was such a hard concept to grasp at that age. But it all made sense when I finally saw my grandpa. He wasn't recognizable. I mean he looked like grandpa but he wasn't the grandpa I knew and remembered. My grandpa was the man who would sit in a rocking chair, whistling for hours, rubbing my dog's belly with his foot. Seriously, our dog knew who to suck up to for never ending belly rubs. And with time, he'd fall asleep in the chair. That's not who I saw that day. It was quiet. There was no whistling. Walking was challenging for him. He didn't talk the same and when it came time to work on the puzzles with him, he struggled to use his fine motor skills and get the pieces in the right spot. He also needed help with meals.

Thankfully we have different textures to help patients like this and it's so important because choking and aspiration can lead to dangerous outcomes.

Some important things to keep in mind is that whenever textures are modified, the appearance of food also changes. Things like mashed potatoes don't matter because we're used to seeing mashed potatoes. But other foods like pureed carrots or meat can be hard for some patients especially if the food doesn't look appealing. Think about it, one of the first steps to eating is with our eyes. And if the food isn't appealing and presentable, that's already gonna affect the taste before actually tasting it. So making sure the food is presentable should be a priority. Also, temperature of food matters. Cold food isn't desirable to most people and can impact nutrition. If the food is cold, it might not get eaten leaving really important nutrients on the plate instead of in the body. I mentioned it before but malnutrition is something to pay attention to with texture modified diets because it's not how people are used to eating. And for many people, food is a big part of their life.

For many cultures, families surround themselves with food. So it's something to pay attention to and take into consideration. Having said that, temperature is really subjective. I've talked to many patients in the years I've worked in a hospital. I can ask 10 people to rate the temperature of the food, giving all of them the exact same food plated at the same time so the temperature is the same. Chances are, all 10 won't tell me the temperature is good - unless they're trying to be nice. Some will say the temperature is perfect and others will tell me it's cold. I've had many patients be honest and tell me they like their food piping hot which can be hard to meet in a hospital setting. These are people who microwave their food really hot where it's steaming. I'm one of those

people where I like my food warm but not too hot because I find I can't enjoy my food when it's too hot and it doesn't have much flavor. And that says a lot since I tend to like bland food. So we do our best to provide hot food but some people want their food extremely hot. Temperature and the taste of food is just so subjective. Take cilantro for example. It's an herb I just can't stand. It's one of the worst tasting herbs to me. The smallest speck in a food is an explosion of undesirable flavor to me and yet, I'll sit next to a friend who piles it on her food and loves it. What works for one person won't necessarily work for the next. So we do our best to provide good tasting food and food that's the right temperature. Modified textures can make the task just a little more challenging due to the nature and consistency of the food.

So there you have it. That's a run down on the International Dysphagia Diet Standardization Initiative or more commonly known as IDDSI. I've put the link to the website so you can learn more about these texture modified diets. There's information and resources on the website that are helpful. And remember, safety is extremely important. We want to do everything we can to prevent harm to patients.

Keep going. Keep up the great work. Be kind to yourself and remember, how important your mindset is. The words you tell yourself matter so make sure you're telling yourself kind, positive, and encouraging words. And stay on top of your study game. There's no limits to achieving the success you so deeply desire. Until next time.

[Music and Outro]