

#### Module 3 Lesson 2

#### **Transcript**

Hey everyone. Okay, so it's time to talk food. Specifically, we're going to get into diet recommendations specific to improving cognition. We'll be going over today, the recent scientific research in food and brain, specific nutrients that have beneficial effects on the brain as we age, and how to use this information in your dietary recommendations. How many times a week do you walk into a room only to forget what brought you there in the first place? I know it happens to me. How many times have you misplaced your keys recently? What the heck is going on when you sit and read an article for 20 minutes, then can't remember a thing you just read. That one is the worst to me. Reading comprehension baby.

Who among us does not feel completely petrified by the thought of dementia and Alzheimer's disease that plagues so many people in our country. I can tell you that I'm in that same boat. It worries me. Sometimes I find myself going through a few days of feeling really off like my head isn't on really straight and it definitely upsets me, especially since there's a lot of Alzheimer's in my family history. I take it for granted that I am usually pretty quick, so when I'm forgetful, it's super upsetting. I'm so obsessed with this topic because the newest research is revealing that just like you can exercise to prevent bone loss and just like you can brush your teeth to prevent cavities, eating certain foods, I love again, of course the study of nutrition and nutrients is integral to preventing cognitive losses.

In this lesson, I'm not using an anecdote or a story to paint the picture for you. Instead, I want you to think of someone you know in your world who you remember as being really with it most of their lives who seem to maybe dull a little bit over time. Maybe you have a parent or grandparent who used to make scones from scratch without a recipe their whole life who can't remember the ingredients anymore. Or maybe you have someone in your life who you know and love who repeats stories over and over because she doesn't remember already having had that conversation with you 10 times. These may seem like small things, but as I'm speaking to you today, I want you to keep this loved one in your mind. Learn this for them and for you going forward and for all of the people you're helping.

I'm going to start with a little bit of the science so you can think about how we're studying food in the brain and how the studies are furthering our knowledge. As always, I'm going to focus most of this lesson on connecting this information to practical application. The, what you can do, piece of the puzzle. I've always been interested in nutrition and cognition and I'm thrilled with the recent news coverage about brain health. Nobody is more hungry for information on health than I



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am so I read a lot or maybe you all are too. What really piques my interest is the recent scientific research in food and brain which suggests that controlling the risk factors for obesity, cardiovascular disease, and diabetes may delay the onset or decrease the possibility of developing Alzheimer's disease or dementia.

Science is saying that things that make us overweight cause heart disease and diabetes may also be contributing to decrease brain acuity. Interesting and totally no duh at the same time, right? The thing is that, so much of the research looks at only one nutrient and how it affects the brain. I'm kind of over isolating one nutrient and trying to make that one single nutrient the key to a cure in a bigger picture of a diagnosis. Even if Omega-3 fatty acids play a role in brain health and we can see more Omega-3 intake is linked to better MRIs, we still can't pop some Omega-3s and think we're simply fully protected. We still have to pass on the bacon, egg and cheese and say yes to the avocado toast on sprouted bread.

When your doctor says to try a B complex vitamin supplement to help manage your depression because they read some articles about the role of vitamin B without even knowing if you're deficient in vitamin B in your diet, I shrug my shoulders and say, you've probably got nothing to lose, but that one nutrient is unlikely going to fix the issue. Of course understanding isolated nutrient information helps us make good recommendations and should be used as a tool in caring for the whole person. Really good science tells us that there are beneficial effects on brain aging from the antioxidant nutrients such as beta carotene, lutein, lycopene, selenium, vitamin A, vitamin C, vitamin E, flavonols, and then also other nutrients like calcium, fiber, folate, zinc and Omega-3s.

Scientists have studied these in isolation and found there are good brain benefits from getting enough of them into your diet. So let's take this research one step further. Specific nutrients are just one part of the entire diet and they, for sure affect brain structure and function. How are scientists supposed to know and compare who is eating a healthful diet and who is not? Then apply that to who is experiencing cognitive decline. Well, the science isn't perfect, but they have subjects do dietary recalls and food frequency questionnaires, which we know are both full of measurement of error.

You and I could live in the same house, eat exactly the same foods and report totally differently using a recall or questionnaire method. Not to mention, here's where one of us may have a better memory and one of us may already be mentally declining. So scientists can look at blood, tissue, and urine to see an estimated intake of a wide range of dietary components, including overall fruit and veggie intake, citrus fruits, cruciferous vegetables, salmon, red meat, soy, whole grain



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cereals, coffee, tea and wine, food additives, and food contaminants, which really ups the validity of the food frequency questionnaire method or self report.

When scientists and researchers look at the brains via MRI of people that drink caffeine and alcohol compared to people that don't, we can see or they can see that the brains of the people that don't consume alcohol and caffeine are much healthier. Neuro-plasticity is a super sexy topic when we explore nutrition and cognition. Basically the brain, which uses 20% of the calories we consume has structures that are able to improve connections and function better if we're fueling them with nutrients such as antioxidants, which are found to help improve cellular repair. I love this stuff. Okay, so here's some examples. Omega-3 fatty acids boost brain functioning and communication. Flavonoids help improve brain plasticity and vitamin E has been found to reduce the risk of Alzheimer's. B-6, B-12, and folate may improve brain plasticity and prevent brain shrinkage. I love this stuff.

Let's get to the applied part of this lesson and translate all of this into practice. Science is leading us down a path that finds cognitive decline is due to an inflammatory response in the body linked to obesity, heart disease and diabetes. We want to make sure we're getting in antioxidants, fiber, folate and all of the nutrients I just spoke about and we're not getting in the process stuff. There's some strong evidence here that eating healthfully is the foundation. We tell nearly everyone to get those Omega-3s in, have a meal or snack every three to five hours limit processed foods and go to town on the healthy veggies that so often get left off of the average person's plate.

A healthy diet is a cornerstone of healthy cognition. Some of the old research on the Mediterranean diet has been revisited and shown that the populations that eat a Mediterranean diet not only have better heart health and life expectancy, but also show slower cognitive decline. That is a safeguard against Alzheimer's and dementia. So the best research really shows that for brain functioning, a Mediterranean diet rich in antioxidants and protective compounds found in foods like olive oil, nuts, fresh fruits, and veggies, and whole grains is the best strategy in preventing cognitive decline associated with aging. Okay, that was a lot of information and now I'm feeling pretty hungry with all this food talk.

Let's go over the essential takeaways from this lesson. There is a lot of research showing the connection between diet and brain health. Some key nutrients to focus on are antioxidants including beta carotene, lutein, lycopene, selenium, vitamin A, vitamin C, vitamin E, and flavonols. Also calcium, fiber, folate, zinc, and Omega-3s. We have evidence that heart-healthy and Mediterranean diets, diabetic meal patterns and anti-inflammatory foods can help prevent cognitive decline. You can work with clients to increase their intake of fruits and veggies, whole grains, nuts, olive oil and



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Omega-3 rich fish while decreasing the amount of red meat and processed foods. Spices and red wine and chocolate, yay chocolate, in moderation can also be brain protective. So I'm going to go have a little dark chocolate now and I will see you in the next lesson.