Ultra Processed Foods

Transcript

[Upbeat theme music plays]

Dr. Clancy

Welcome to Browning in Iowa, continuing medical education podcast developed by and for healthcare teams. I'm your host, Dr. Jerry Clancy, Senior Associate Dean of External Affairs for the Carver College of Medicine here at the University of Iowa. Today, we'll delve into the world of ultra-processed foods, exploring their origins, popularity, potential harms, and practical guidance for adopting A healthier diet. Our objectives are, first, to equip participants with the knowledge to explain ultra-processed foods to their patients, understand their composition and appeal, and discuss the medical conditions associated with excess consumption. And second, we aim to empower participants to guide patients towards better nutrition, healthier food choices, and alternatives to ultra-processed food options. To address these pressing issues, we're delighted to have two esteemed guest experts, Dr. Jill Endres and dietitian nutritionist Lori Dietzenbach-Winborn. Lori Dietzenbach-Winborn is a registered dietitian nutritionist with over 2 decades of experience in clinical nutrition, public health, and education. Currently, she serves as an adjunct professor at the University of Iowa Carver College of Medicine, where she teaches advanced medical nutrition therapy to Masters of Clinician Nutrition students. She also teaches to the medical students. Lori specializes in bariatric nutrition and is currently employed in the UI Healthcare Bariatric Surgery Clinic. She has held various leadership roles within the Iowa Academy of Nutrition and Dietetics and Toastmasters International. Lori's passion for public speaking is evident in her numerous nutrition-focused presentations to professional groups. We're thrilled to have her join us today and to shed light on this important topic. Dr. Jill Endres is a clinical professor of family and community medicine here at the University of Iowa. She serves as the director of quality and safety and the physician value officer for that department. Dr. Endres earned her bachelor's and MD degrees here at the University of Iowa. She completed family medicine residency, a master's in clinical epidemiology, and a fellowship at Wake Forest where she also served as a chief resident. She has additional expertise in nutrition with a master's of science in clinical nutrition from the University of Wisconsin. Lori and Jill, welcome to Rounding at Iowa.

Lori Winborn

Great to be here. Thank you. It's great to be here.

Dr. Clancy

Well, we're really glad to have you as well. So let's get started. I just provided our listeners a brief official description of your educational background and your current titles. But could you tell us what drew you to this work in the 1st place? And Lori, let's start with you.

Lori Winborn

Sure. I have long been interested in health and wellness and my hobbies outside of work reflect this. Nutrition is a passion that developed during college. Over the years, I have gravitated to working with patients to reduce chronic disease risk, specifically those to which diet and exercise play a key role. Diseases such as adult and childhood obesity, diabetes, heart disease, hypertension, metabolic syndrome, and more recently, MASH, or metabolic associated steatotic hepatitis.

Dr. Clancy

Great. Well, very important role on the medical teams that we have. Jill, how about you? What drew you to this work?

Dr. Endres

I too have always been fascinated with the connection between nutrition and health. It's actually one of the reasons I went into family medicine to focus on lifestyle-related factors like nutrition that promote health and help prevent disease. Every day I work with people from all different life stages and backgrounds, and it's a constant reminder that health isn't just about biology, it's about our culture, our budgets, and how those things shape how we eat and think about food.

Dr. Clancy

Great. we talk about the importance of this an awful lot, but it's nice to see that you both actually walk the walk, which is great. Let's go a little bit further. And what does a typical work week look like for you? And Joe, let's start with you.

Dr. Endres

Sure. I divide my time between clinical and administrative tasks. Clinically, I see long-term patients in my own clinics, and I precept family medicine and family medicine psychiatry residents in their clinics here. I'm passionate about health equity, so I also spend time at the Healthy Kids school-based clinic for children and teens who experience substantial barriers to health access. I help folks working through U.S. citizenship process with

immigration physicals, and I do some integrative medicine consultations with a large focus on nutrition for people undergoing cancer treatment. Outside of clinic, I teach in the College of Medicine and oversee quality improvement and patient safety initiatives from my department. And I serve as a leadership development consultant for the American Board of Family Medicine's Pisacano Leadership Foundation.

Dr. Clancy

That's a full week, I tell you. That's something else. Lori, how about you? What does a week look like for you?

Lori Winborn

Yeah, I work primarily in the bariatric surgery clinic, which is located in the digestive health clinic. Here I work with patients as they prepare for either the Roux-en-Y gastric bypass or the sleeve gastrectomy. This involves working to educate and promote lifestyle changes leading up to surgery, but also the sustained changes to encourage their long-term success after metabolic and bariatric surgery. This population often has a variety of comorbidities such as diabetes, gastroesophageal reflux disease, hypertension, and all of these need to be addressed. Within the last two years, I added ALS clinic to my schedule, and I've really enjoyed working with this population in neuromuscular clinic. And this variety of patients between bariatric surgery and ALS has really kept me on my toes.

Dr. Clancy

Yeah, I would think so. Also a quite varied work week, but both of you really impactful, important work that you do. Before we talk about guidance to our patients on ultra-processed foods, or as Jill sometimes refers, UPF, Let's talk about the basics. Let's define unprocessed foods versus processed foods and ultra-processed food. How do we divide those out?

Dr. Endres

I think that's probably a key question for many of our listeners. Unprocessed foods are foods that are in their natural state and haven't been altered in any way. So some people would refer to these as whole foods. Examples would be fresh fruits and vegetables, raw nuts and seeds, beans, fresh cuts of fish and meat, eggs. so forth. And then we have minimally processed foods. These foods preserve the integrity of the original whole food, but they might have undergone some preparation to promote convenience or enhance shelf life without adding other ingredients. This category would include foods that are like trimmed, cut, washed like bagged salad greens, frozen like fruits and vegetables, shelled and perhaps roasted like nuts, fermented like sauerkraut or yogurt, dried, ground like meat,

vacuum sealed, pasteurized, and placed in containers. And then we have another category intertwined with this called processed culinary ingredients. And these are foods that are derived directly from the natural state through refining or pressing or evaporating and generally used in cooking and seasoning of unprocessed foods not eaten alone. So things like salt, sugar, honey, butter, vinegars, oils. And then processed foods are simple products or foods that have been modified from nature by adding those processed culinary ingredients and may have undergone some preparation methods that could generally reasonably be done in your own home kitchen or ordered in a restaurant. Then ultra-processed foods are much more industrial formulations of foods that might be derived from cheap versions or extractions of whole foods with other chemical additives. So typically things that you don't find in the home kitchen, like flavors, preservatives, colors, emulsifiers, things like that. So this includes a lot of our snacks and sweets like chips and cookies and candy and ice cream, drinks like sodas and energy drinks, flavored milk, yogurt drinks, and pre-made meals like frozen pizzas, hot dogs, instant noodles, and so forth.

Dr. Clancy

So kind of a spectrum from left to right spectrum of unprocessed all the way to super processed. Do we have numbers or letters that we use to classify these? Is there a classification system that we use?

Lori Winborn

Well, the NOVA classification system was developed in 2009 at the University of Sao Paulo in Brazil. And this research team created this NOVA classification system with four different groups. And much like Dr. Andress mentioned, These groups are divided into more unprocessed, minimally processed, et cetera, foods. So for example, group one includes the unprocessed and minimally processed foods. Group 2 would be those culinary ingredients, as she mentioned, so things like sugar, salt, honey, maple syrup, oils, vinegar, foods that would help to preserve those items. Group 3 is the processed foods, and they're created when you would use these culinary ingredients from group 2 and add them to group 1 to lengthen shelf life or to use in preservation methods such as canning, if you bottle things at home, or even fermenting, so pickles or kimchi or that type of thing. And then finally we have those group 4 foods, which are the UPFs or the ultra-processed foods, which are formulated with little to no whole foods, as she mentioned. They have added additives, they have colors, emulsifiers, et cetera.

Dr. Clancy

Great, great. So I'm 64 and I guess it seems like ultra-processed foods have always been around as far as I was a kid. I remember certainly chips and snacks dating back to my grade

school time. So how did we get here? What's the history of the development and expansion of these more processed foods?

Lori Winborn

It derives back from a long, ago. If we think about when ultra-processed foods were first developed, it goes back to 1869 when the first ultra-processed food was developed, and that was margarine, when they were looking for a less expensive alternative to butter. After that, we look at World War I and even before World I, but it was noticeable during World War I during the sugar shortage. when the non-nutritive sweetener saccharin, also known as Sweet-Lo, became more commonly used. So they've been around for quite a while, but just expanded, of course, in the past several decades.

Dr. Clancy

Do you have a sense of the amount of consumption of ultra-processed foods as an overall percentage of food intake? And is there some variation as far as regions or countries as far as who consumes ultra-processed foods? Seems like an awful lot here in the US.

Dr. Endres

Yeah, it's a lot. Unfortunately, the United States intake is the highest in the world, with ultra-processed food intake comprising almost 60% of total calories. The dietary share of ultra-processed food intake ranges from a low of about 9% in Iran to the 60% in our country. And some estimates in the United States show up to 67% in youth. Overall, the intake seems to correlate with national wealth, but there are some exceptions. So the dietary share of ultra-processed foods is lower than 25% in some high-income countries in Southern Europe, like Italy, Greece, Portugal, and in Asia, Taiwan, and South Korea. But it's more than 40% in Australia and Canada, and more than 50% in the United Kingdom and United States.

Dr. Clancy

Well, very interesting how the variations, I think we could talk for hours on why that's so. But let's talk about the processing itself. What are some of the processes of alter-processed foods? Can you give us a sense of what is done to these foods? What's added, what's mechanically done? How are they altered in the different ways?

Dr. Endres

Yeah, as you kind of alluded, Jerry, the processes involved in production of these foods generally requires pretty advanced equipment and more industrial processes than we can really do in our home kitchens. So they focus on degrading the food matrix. So the food matrix is just kind of the structure of a natural or whole food. And so these processes will

mill or extrude, which is forcing it through small openings at high pressure or heat to promote rapid digestion and disrupt satiety mechanisms. They heat treat foods that can produce toxic byproducts. They add cosmetic and textural ingredients. like emulsifiers, colors, preservatives, flavors, bulking agents, thickeners and sweeteners. And then the packaging is another aspect of it. So our BPAs and phthalates that are known endocrine disruptors contaminate food from the plastic linings and cans and bags and films and so forth.

Dr. Clancy

The packaging is something I didn't really pay attention to, but boy, there's a legacy of nostalgia to some of the brands as well. If you think about it, goes all the way back to childhood. Yeah. Why would you do this to a food? What are the aims of these processes? I imagine some of it is preservation and shelf life, but is there other aims and goals of doing this to food?

Lori Winborn

So I actually want to talk a little bit about fractionating food. **Dr. Endres**s touched on it a little bit. But if we think about When we fractionate these foods, I think it gives a good visual if we can think about dairy milk. And if we have our dairy milk and we fractionate that into whey, casein, and milk fat and kind of follow that whole process. We think about whey protein, we know that's commonly found in the protein shakes we consume on a regular basis. If we think about milk fat, we find that specifically in high fat dairy products, so things like your ice cream. And then if we have something like yogurt, which many of us eat on a regular basis, specifically Greek yogurt, we'll have the protein, but what we have instead of the milk fat is we have an emulsifier. So that emulsifier would be something like guar gum or carrageenan gum. that thickens that yogurt to give it that mouthfeel and creaminess that milk fat would have done, but it's been replaced with an ultra processed item. So that's a good example, I think, of where we consume these ultra processed foods and how we can identify what these items are and where these fractionations take place to give us a food that tastes good, but it's not as it could have been because it's been ultra processed.

Dr. Endres

So I think the aims of the corporations that make these foods are obviously to increase profitability. The corporations know that these processes increase consumption and even addictive behaviors. They want the foods to look appealing, to feel pleasurable, to taste satisfying and to increase consumption and purchase.

Dr. Clancy

Yeah, What are some of the intake differences between kind of focusing on minimally processed and unprocessed foods versus eating ultra-processed foods? What happens to us as we separate those two different pathways of eating?

Dr. Endres

So I'm going to define what an intake difference is because some of our listeners might not be familiar with the terminology. An intake difference in the nutrition context is the variation in intake of a specific nutrient that's consumed by a person or a group of people. And when we vary a nutrient, the amount of ultra-processed food intake, say, by increasing it, we see some broad patterns. The first broad pattern is nutrient imbalances. So there was a meta-analysis of national surveys from 13 different countries that showed that when we have high ultra-processed food energy intake, The intake of nutrients that are associated with the higher risk of chronic diseases like sugar, total fat, saturated fat is also much higher. And the intake of nutrients that are protective for chronic diseases like fiber, potassium, zinc, magnesium, and many of our vitamins is lower. It also increases energy intake. So the estimated increase of the caloric intake associated with ultra-processed foods is about 35 calories per day for every 10% of calories from ultra-processed foods. So a diet high in ultra-processed foods can eat as much as 500 calories more per day, and studies show that they eat faster. And then there's a reduced intake of those health protective phytochemicals like fiber and antioxidants and phytoestrogens. Obviously, there's an inverse relationship between UPF intake and the intake of healthful plant-based foods. And then lastly, the xenobiotics, those foreign substances. So there are toxic chemicals that are often generated in the manufacturing processes. Levels are higher of many of these chemicals in ultra-processed foods. These foods have higher levels of additives that are harmful to health, like emulsifiers and flavorings and non-sugar sweeteners and colors and so forth. And in addition to that are the packaging things that we talked about, the phthalates, the PFAs, the BPA that can leach from packaging and our endocrine disruptors. So people with higher ultra-processed food intake have higher levels of these substances in their circulation, in their urine, and in pregnancy, even in umbilical cord samples.

Dr. Clancy

Yeah. Lori, anything you want to add to that?

Lori Winborn

Yeah, when we think about these foods, the intake difference varies because of that pleasure reward system that helps keep us coming back to these items. Satiety is reduced because there's less fiber and water content in most of the UPFs. So for example, calorie density of a UPF is approximately 378 calories per 100 grams, where if we had more of a

minimally processed or unprocessed food, that calorie density is 68 calories per 100 grams. So a five times higher calorie density with a UPF than a minimally or unprocessed food item.

Dr. Clancy

Really, really adds up, doesn't it? Before we get into strategies for our patients, let's talk about some foods marketed as healthy alternatives that in fact still fit under that ultra-processed kind of banner. What's important to know as far as ultra-processed foods marketed as healthy, because it's everywhere.

Lori Winborn

Yeah, it is everywhere. And I think it's important to make the distinction that you can still have some ultra-processed foods and get good nutrition. So for example, something would be as simple as whole wheat bread, whole wheat tortillas, or even whole wheat pitas, which provide whole grains, fiber, and B vitamins, things such as Low sugar instant oatmeal does provide whole grains and soluble fiber. Jarred red pasta sauces are a great reliable source of lycopene, which is an antioxidant which can help be a cancer preventer. Also things like baked beans, which contain protein, fiber, and potassium. We talked about Greek yogurt already. That's a great source of protein, calcium, and vitamin D, as well as probiotics. So there are some places that you can still find ultra-processed foods that do provide some health benefits.

Dr. Endres

I agree. And another really important one is infant formula. Infant formula is an ultra processed food and it's a much safer option for infant feeding than using whole milk, especially raw cow's milk, because of the risk of contamination and poor nutrient absorption from that. Human milk, of course, is superior to both of those, but that would be an example where it actually helps our population. But I think in most categories, using a processed food or a minimally processed food instead of an ultra-processed food is going to lead to better health outcomes. Laurie mentioned whole wheat bread, and we can get a lot of health benefits from whole wheat bread. But if we really look down at the more granular, so to speak, details of milling the flour, the amount of milling or the fineness of the milling of flour makes a big difference in how the nutrients are absorbed and what the health effects of that food are. So the particle size changes how your body processes it. So that finer milling breaks down the structure of the grain and reduces the beneficial impacts of the fiber. So eating the more whole wheat, more coarsely ground flour is better for us than the more processing within that. Does that make sense?

Dr. Clancy

Yeah, oh yeah, makes sense. And you can taste it in the food, you really can. Jill, you touched on this, but I want to again come back to evidence-based medicine. And obviously, ultra-processed food is now very much in the forefront of both state and federal policy. A lot of claims have been made as far as what ultra-processed foods can do to you long-term. What does the research show as far as some of the overall impacts on morbidity and mortality from these ultra-processed food diets? Is there good evidence out there as far as some of the harms?

Dr. Endres

Definitely, A lot of the effects are related to nutritional displacement, like we talked about earlier. When we have more UPF intake, we usually replace the whole foods that provide our necessary fiber and nutrients that promote health. When we say is there good evidence, it's kind of difficult to do long-term randomized controlled trials on ultra-processed foods because there's not really consistent universally accepted definition. There's a huge diversity in ultra-processed foods. It's difficult to randomize a lifestyle intervention. And the patterns take time to develop and impact outcomes. So studies usually rely on self-report and retrospective self-report of ultra-processed food intake, which is of course prone to bias. But we do have a lot of epidemiologic data in large population-based studies that demonstrate that UPFs have harms and the results are consistent across different populations and geographic regions. We have a lot of pooled data from many studies that have found clear correlations while controlling for things like total caloric intake, weight, age, sex, smoking. alcohol intake and family history. So we can feel confident, a little bit more confident at least in causation, when there's a large magnitude of effect or a clear dose-response relationship. And because we don't have evidence of any beneficial outcomes, we can feel even more confident making recommendations to avoid ultra-processed foods. So the strongest data we have available is the association in the area of type 2 diabetes. There is a dose-response relationship between the amount of ultra-processed food intake and the likelihood of developing type 2 diabetes and of course on blood sugar control within that as well. High ultra-processed food intake is associated with a 55% increased risk of obesity and specifically an increased risk of abdominal obesity, which is associated with worse cardiometabolic outcomes. And I think Laurie can talk about the liver-related impacts of that. All-cause mortality is higher with a higher UPF intake. So 10% increase in intake is linked to a 10 to 15% increase in all-cause mortality. And then we have lots of associations that have been shown in the literature with a negative impact on mental health, depression, anxiety, poor sleep, positive associations for many different types of cancer and cancer mortality, cardiovascular disease, cerebrovascular disease, hypertension, chronic kidney disease, hyperlipidemia, the list kind of goes on and on.

Dr. Clancy

Great. Lori, what would you like to add to that? Because I know you were involved in more national organizations around dietetics and nutritionists and such. What do you see as important impacts of these ultra-processed foods and how it might affect policy?

Lori Winborn

I think a lot of it has to do with obesity, right? And Jill touched on the fact that there is no term or accepted term for what an ultra-processed food is. And so until we get something like that in place, I think it's going to be more difficult to limit them or label them as something that we need to avoid because it's really unsure as to what is considered what, unless we decide to accept the Nova classification system as our ultra-processed food definition. Obesity definitely is one of the leading causes of issues related to ultra-processed foods. So, and they all, as Jill mentioned, tie into these chronic diseases, right? We have cancer risk, we have liver diseases, we have MASH, metabolic syndrome, all of these tie in with obesity and ultra-processed foods are one of those contributing factors that lead to obesity.

Dr. Clancy

Got it. You both work with really varied populations and at the University of Iowa, we care for everybody. What do you see as far as worsening health disparities associated with the availability of ultra-processed foods here in Iowa and maybe across America?

Dr. Endres

I think that's one of the most concerning aspects of all of this. Ultra-processed foods worsen health disparities. We see disproportionate use by people with lower family income levels and lower education. There's an income gap with intake rates about 5% higher in the lower income brackets, about 55% compared to about 50%. Because as we discussed, ultra-processed foods are cheaper to produce, they're hyper-palatable, they're very shelf-stable. And because they are so energy dense and they are often made with mass-produced and subsidized ingredients, the cost of purchasing ultra-processed foods is about 55 cents per 100 calories. compared to about $1.45 for unprocessed foods. So they're much more affordable to those people that have lower income and they're more accessible too. So in underserved areas, there are often few or maybe no stores that sell fresh whole foods, but ultra processed foods can stay on the shelf longer. They're easier for the stores to stock. That makes them the primary option in food deserts where people with limited resources are often forced to shop. So I think that worsens our disease burden and health disparities associated with this. And of course, the effects of that are higher obesity rates, higher mortality, higher chronic disease rates, and so forth.

Dr. Clancy

One of the terms I've 2 terms, you know, I've heard food deserts, but then the areas of the town or the community that has got all fast food known as food swamp as well, where there's availability of food, but it's not good food. I think about those value meals and such that are sometimes just the cheapest way to feed a family sometimes.

Dr. Endres

Yeah, even more sadly, I think, in addition to the kind of the access considerations, the risk associated with the same level of ultra-processed food intake seems to be even higher in black individuals than in non-black individuals. And we don't really know what the underlying mechanism here is trying to control for known confounding biological and social variables, but the differences persist. So there are probably some social factors that we can't yet quantify in research. One study showed that black adults had a 55% greater increase in risk of hypertension from the same ultra-processed food intake as a non-black adult. So there are even bigger impacts associated with the higher risk of higher intake.

Dr. Clancy

I spent a lot of time in my career in Oklahoma and certainly saw the impacts on indigenous people and Native Americans. They seem to be something different in their metabolic systems, that they were much more susceptible to some of these foods.

Dr. Endres

And they're bombarded with them.

Dr. Clancy

Absolutely. You know, this is an area that is developing, but at least as far as where trends or where at least some thoughts are going. At the molecular level, do we know how these foods impact our gut biome?

Lori Winborn

We know a balanced and healthy gut environment is created and maintained by having a diverse microbiome. So having the same types of food, the same types of processed food does not lend to a healthy gut microbiome. The gut microbiome also benefits the immune system, and we know that communicates with the brain and the gut-brain axis. So when this system remains in balance, the gut is happy, the gut is healthy. Dysbiosis can occur with that disruption or the loss of this balance. So eating too many processed foods can definitely, alter processed foods can definitely have a negative impact on the gut microbiome.

Dr. Clancy

Great answer. You know, we talked on this a little bit, but I want to just circle around one more time. You know, I understand that these foods have been engineered in a sense with the goals of impacting palatability and satiation. And one of the interesting aspects of the GLP-1s is that it does have an impact on satiation. Is there evidence to show that these food really increase your food drive at that brain level? You mentioned a little bit on addiction, kind of almost addictive behaviors, but is it known at that brain level to be mimicking some of the other chemicals we put in our body that leads to addiction?

Dr. Endres

The corporations know this. The engineering to increase consumption is precise and disturbing. It's all kind of very similar to the way social media platforms leverage algorithms to keep users addicted and engaged without them knowing it or the way the tobacco industry increased nicotine addiction. It's really consumer manipulation. So these manufacturers have found what some scientists will refer to as the bliss point, which is the perfect combination of the doses of salt and fat and sugar that maximize pleasure and stimulate our brain's reward centers, overriding our satiety signals without overloading them. And then they engineer flavors with a shorter hang time, which is initially strong, pleasing flavors that fade really quickly and then result in renewed cravings almost immediately to make you consume more. They are also designed to be absorbed very rapidly through the milling and extraction processes by removing the natural matrix of the food. So the sugar and the fat get into the bloodstream and result in more immediate and intense dopamine spikes. So the same techniques make the foods easy to chew and swallow. So people eat faster. They create a calorie dense food that is low in volume, so they have to consume more to feel physically full. And without the fiber and the protein, they don't trigger hormones like CCK or PYY that tell your brain that you're full and make people stop eating.

Dr. Clancy

Great answer. All right, enough depressing stuff. Let's go into some detail on how to get started educating patients on the facts of these foods and considering a new approach to their nutrition. How do you start the conversation with someone on this? It's something I have to do with my psychiatry patients simply because some of the meds that I prescribe them actually are very pro-waking. And so I have to have that serious talk with them about how they need to change. How do you guys start the conversation with the patient on this?

Lori Winborn

I think it's important to flip the script. So we're first currently consuming roughly 60% of our calories from ultra-processed foods. How about if we reduce that to 40%, right? Maybe that's a good starting point. So working to crowd out the ultra-processed items with more unprocessed and minimally processed foods, starting with simple goals, that would be choosing a healthier snack or maybe consuming less soda and more water throughout the day, or even having one fresh fruit or vegetable with each meal. Something simple than going from there.

Dr. Endres

I really like the crowding out framework, kind of emphasizing the positive shifts, things that you can add to the diet that are more healthy rather than what to restrict. I think that sits better with a lot of people. Another really simple thing is just to think about kind of the kitchen test. I call it, look at the ingredient list on the food. Is it something that you can't find in your kitchen? Can you make this in your kitchen? If not, it's probably an ultra-processed food and there might be a better alternative.

Dr. Clancy

Good answers. How about setting realistic goals and a realistic timeline for someone that wants to make the switch? You talked about just starting with small steps. After that first small step, what do you advise people?

Lori Winborn

I recommend starting today, right? Don't wait till tomorrow. Don't wait till next week. Don't wait till the 1st of January. But start today. There's no better time. Oftentimes we see patients that will begin making a lifestyle change after a serious event occurred, cardiac event, maybe they were diagnosed with diabetes or they had a cancer diagnosis and then they make a lifestyle change. But there's no better time than now, right? Prevention is key. Choose one simple goal and go from there. You know yourself better than anyone else. If you drink a lot of soda, let's cut that back. If you don't eat many fruits and vegetables, let's add them in. It doesn't have to be anything difficult or expensive. It can be something very simple. Give yourself grace. And if you don't do well, shake it off and start again the next day. If you don't make time for a healthier diet now, then you'll need to make time for illness later.

Dr. Clancy

Oh, that's a good one. You know, I have a undergraduate degree in biochemistry and I went through med school and I did a research fellowship in molecular biology. So I have a lot of biology training itself. Even when I read these labels, there's stuff I've never heard of and I'm

trying to piece it together in my mind, what in the world does that look like, even as far as chemical structure? So for those that are non-biochemists, what guidelines and guidance do you give as far as shopping and reading labels?

Dr. Endres

There are lots of approaches to this. Some people say that you can try shopping mostly the perimeter of the grocery store. So that's where most of the whole foods usually are, the produce department, the meat and fish counters, the bakery and so forth. So the things that are locally produced rather than the more processed industrial commercial foods that are in the center aisles. That can be an easy thing to focus on or at least do that portion first. and then go back and buy the other things that you need. I think it's just important to make intentional choices. Jerry, you mentioned earlier how there's kind of a nostalgia or an emotional reaction to some of the packaging. So I think we have to be mindful of how marketing and packaging influences our purchasing patterns. Read the labels, read the ingredients, compare sugars and saturated fats and sodium levels. And I would say make a special effort to avoid really high markers of ultra-processing, like preservatives like nitrites and nitrates and sulfites, artificial sweeteners like aspartame, sucralose, because of their effects on the gut microbiome and metabolic health. Avoiding those texture agents and emulsifiers, like Lori talked about, the carrageenan and modified starches that can have really big impacts on health.

Dr. Clancy

Laurie, how about you? sit down with a lot of people starting at a lot of different levels of health literacy. How do you guide patients?

Lori Winborn

You know, when we meet with patients, and I can just think of bariatric surgery clinic as an example, we give them a great format, I believe, for structuring their meals. And that includes each meal containing a carbohydrate, a protein, a fat, and then adding a vegetable for lunch and dinner meals, just to give them a good balance when it comes to eating. We oftentimes see individuals choose a diet high in carbohydrates and then they neglect the protein or they have no vegetables throughout the course of the day. So really focusing on a balanced diet to help provide satiation, to give that fiber that they need, the fluids that they need. And that tends to be much more easy to maintain for a long time.

Dr. Clancy

How about guidance on cooking and food prep? Just in general, cooking more on your own and prepping food more on your own than the pre-packaging. Is there other guidance here as far as what to do in the kitchen?

Lori Winborn

I believe planning ahead is key. If you come home after a long day, you're going to go to the fast food restaurant, you're going to throw in a frozen pizza, but if you can plan ahead and have the food that you need at home to prepare something quickly, you're more likely to succeed with that. So having healthy meals on the ready, many patients or individuals actually will have Sunday afternoon where they prepare food for the week. And some people succeed with that. Others don't want to give up their Sunday afternoon to prepare food in the kitchen. So instead, I would recommend take a look at your week. If there's a night or two that you don't have events planned, make an extra meal to last you for the next couple evenings so you don't have to have fast food or quick convenience foods and you have something that's homemade, prepared and ready to heat up.

Dr. Endres

Same is true of snacks. I think Lori gave great advice, making sure that you have snacks that are ready to eat, whether they be fresh fruits or fresh vegetables, already ready to grab rather than having to grab something out of a package. The other thing I would emphasize is just to be adventurous, to try new flavors and recognize that you can learn to enjoy healthful food. It might not be natural or instantly satisfying, but you can, after repeated exposure, really develop a preference for food that is better for your body.

Dr. Clancy

Sure. Well, I have one tip that's kind of a trick is that I I try to use the grill outdoors well into winter as well. I find grilled vegetables to be a little bit better than microwaved, and I find grilled fish and grilled beats taste a little bit better. And to me, that actually is kind of a trick on keeping the healthier foods on the table. During high school, I worked at Baskin Robbins. Interestingly, the owners thought that They let all us high schoolers have as much ice cream as we wanted because we would get sick of it. And they lost money on me because I never got sick of it. I was running about 20 miles a day back then and so I was always behind on calories. But brings me up to this next question about indulgences, thinking about Thanksgiving and holiday meals and days off. How do you guide patients around that versus just absolutely strict, strict, strict? Laura, you mentioned grace a little bit. Is there grace in planning a little bit of an indulgence as well?

Lori Winborn

Definitely. One of the thoughts that I typically go with is if you need a day off from your diet, it's too strict. If you need Saturday to eat everything that you weren't able to eat all week, well, then you've been restricting yourself too much. Your diet should be something that you can maintain day-to-day. Occasional indulgences for the holidays, just have it and get back to your regular routine, right? Have your Christmas meal, your Thanksgiving meal, but don't let it extend from Thanksgiving to the first of the year. So just being realistic with your expectations, enjoy something, but then go back to a healthy diet.

Dr. Clancy

Holiday rather than holidays. Yes, absolutely. Good.

Dr. Endres

And I think there are certain areas where we can maybe focus on stricter limits, like avoiding sugar-sweetened beverages or artificially sweetened beverages altogether, or aiming for the 80-20 rule. Make 80% of your calories be from whole or minimally processed foods. It doesn't have to be a 100% elimination. We're just trying to curtail the use of them.

Dr. Clancy

Okay. All right. Let's get into some personal favorites where the rubber meets the road as far as food prep. Is there any better way to make or order a pizza?

Dr. Endres

I like Lori's suggestion to crowd it out. Not necessarily not eat the pizza, but have a salad with it or start with a salad.

Dr. Clancy

Lori, how about you?

Lori Winborn

Yeah, that's exactly what I typically recommend to patients. And even my family, when we have pizza, I throw salad on the table, we have some vegetables, that kind of thing. We know if we only have pizza served, we're only going to eat pizza. If we have salad or some vegetables, we can fill up on some lower calorie items and get some health benefits from the vegetables as well.

Dr. Endres

I think for the pizza itself, there are lots of ways to make it more healthy too. You can experiment and be creative with toppings. I've had great pizzas with arugula, green beans, asparagus, pears. It doesn't always have to be sausage or pepperoni or tons of cheese.

Dr. Clancy

Yeah, when I was in Israel, it was common to have salmon on your pizza, and it was quite a surprise, and I thought, this is just not going to be right, but it was great. Lots of directions, lots of directions you can go. Another one, how about tacos?

Lori Winborn

I think tacos served with lean meat, a variety of vegetables can be a very healthy meal option, right? It just depends what you put on it. You've got some avocado, salsa, lettuce, tomato. You've got a lot of healthy foods. I think tacos are a great idea for a meal.

Dr. Endres

Yeah, and you can use alternate proteins. My family love chickpea tacos that we make and they're delicious. You could also think about the toppings that you're using, using Greek yogurt instead of sour cream with emulsifiers. using real cheese, of course, instead of cheese sauce. We can just be mindful of what we put on them and we can make them very healthy.

Dr. Clancy

Absolutely. You can get that crunch and all that stuff with the vegetables as well. Yep. All right. What are some of your favorite ways to prepare fruits and vegetables that everybody would like?

Lori Winborn

I have really got to love roasted vegetables. Roasted vegetables in the winter is one of my favorites. Jill, you alluded to this already. Roasted beets, roasted broccoli, cauliflower, those types of things are great. In the summer, not only grilling meats, but grilling vegetables. If you have friends that grow zucchini, they are likely going to give you bountiful amounts of zucchini. And I found that grilled zucchini is fantastic. So that's one of my favorites. And then of course, fresh salads with ranch dressing is my favorite.

Dr. Clancy

How about you, Jill?

Dr. Endres

I think the most important thing is to eat them the way that you enjoy them the most. So if you like raw vegetables, eat them raw. If you like them roasted, eat them roasted. You have to experiment and find the things that appeal to you most.

Dr. Clancy

We use our air fryer for the vegetables most of the time.

Dr. Endres

Yeah. In the wintertime, we love to make sheet pan roasted veggies with feta cheese and put it over quinoa or brown rice or something like that. It's a great meal.

Dr. Clancy

Good. I'm glad we're finishing up on this positive side of things. Yeah. How about getting kids started right or helping kids transition to a healthier diet? We did a whole podcast on kids and type 2 diabetes, but You both have a broad group of patient population. What are some of your advice for kids?

Lori Winborn

I have three boys and I'll tell you that teaching kids, especially teens, can be tough. I feel like it's important to teach them daily about eating healthy by providing healthy meals. So setting the example, providing a balanced breakfast, keeping foods that are healthy on the ready. So make the healthy choice the easy choice. having a fruit basket on the counter, healthy snacks that are available and accessible, serving fruit and vegetables with meals. As kids get older, make sure you explain why you're doing this. Why the fruits, why the vegetables, why do we have whole wheat bread all the time, things like this. Having lean meats, but also offering plant-based proteins is important. Your kids will at least partially hear you. And then make sure you set the example as I mentioned. Eventually when they're able to make their own food choices, hopefully they'll remember some of the things that you taught them. And always praise the small things, but don't discipline their poor choices.

Dr. Clancy

Jill, how about you? Family med docs, take care of everybody.

Dr. Endres

I think Lori gave great advice. It's just so important to start working on this early in life. because our taste preferences are formed in early childhood and that constant exposure to ultra-processed foods leads to lifelong preferences for salty and sweet and artificially

flavored foods, which can have really serious health consequences when they're consumed lifelong. I think Lori already emphasized the importance of role modeling. We have to show them how to do it. It's a do as I do, not just do as I say kind of situation. And remember that It's so challenging because everywhere they go, these kids are inundated with aggressive marketing wherever they live and learn and play, from childcare to rec facilities and sports and shopping malls and media, entertainment, gaming. A lot of the things that they see are like blurring the lines between entertainment and advertising. And we have to do our best to counteract that at every chance we can.

Dr. Clancy

Absolutely. So kind of circling back. As we look to the future, we have new legislation this year in the state of Iowa that really puts mandates on school lunches and removing dyes from those school programs as well and requirements for physicians to get additional nutrition education and 40 hours of nutrition education for our medical students. So I think this is going to be in the forefront for a while. What do you both see playing out over what seems to be a battle of these readily available, heavily marketed ultra-processed foods and a movement toward healthier unprocessed foods? How do you see this is going to play out? Do you think there'll be a winner and a loser or is it just going to be a battle, battle, battle?

Dr. Endres

I think there's a little bit of hope when we look at the statistics recently. If you look at NHANES data, it shows that intake has risen pretty consistently over the past couple of decades. But in the past couple of years, it's kind of plateaued, maybe even decreased a little bit since maybe 2017 or so. So I do have a little bit of hope that people are starting to recognize that this is a problem. I do think that in order to win the battle, so to speak, to carry on that metaphor, we're going to have to have some policy changes, whether that be restrictions on marketing and availability or regulations for labeling or ingredients or so forth. There are a lot of other countries that have made some really impactful regulations that have had real life positive consequences. Yeah.

Dr. Clancy

Lori, what do you see?

Lori Winborn

Yeah, I feel like policy does have to be in place. And one of the things that has already taken effect is red number three, one of the petroleum derived food dyes will be removed from the food supply. That's something that's already been enacted by January of 2027. So that's something that food manufacturers are already working to remove from the food supply.

Things like beet color and different things will replace that red number three. But we really have an uphill battle, right? As customers, we need to talk with our dollars and reduce our food or alter processed food intake while really focusing on increasing our unprocessed foods. But it will be a cognizant effort to really make that happen.

Dr. Clancy

Great, great. As we close, what are some of the take-home points you'd like to leave with our listeners? And Lori, let's start with you. What's kind of your bottom line, most important as we finish up?

Lori Winborn

I don't feel like ultra-processed foods are going anywhere anytime soon. We need to navigate the grocery store. As I mentioned earlier, flip that script to one where we can consume more unprocessed and minimally processed foods while starting to crowd out those ultra-processed item. Change is hard. There's no doubt about it. It's difficult to make food choices and change our food choices. Think of making one change a week. Once you get that knocked down, then let's make another change. I'm a huge advocate, as you've heard, for eating your vegetables, and this is a great place to begin. Focus on nutrition by addition. What can I add to my diet? And in turn, reduce that portion size of ultra-processed foods. So starting to implement better food and drink choices and to make your health a priority.

Dr. Clancy

Really good. I can tell you've done a lot of this, so great job. Jill, how about you? Some take home points.

Dr. Endres

We just know a lot more now about the health risks of ultra-processed foods. When Lori and I were talking about this a couple of weeks ago, it's sort of like snacking is the new smoking, right? We need to be more cognizant of what we're doing. So as consumers, we have to be aware of not only the risks of high ultra-processed food intake and the benefits of crowding it out with other foods, but we have to be aware of those manipulative strategies we talked about by corporations to maximize their profits. We can show those corporations that quality ingredients and nutritional value matter to us and our spending can influence production.

Dr. Clancy

Thank you both so much for joining us today and for your great work on great nutrition and providing healthy food options and diets and your tips on strategies and tactics to make this actually work for our patients. Well done. To our listeners, thank you for joining us for this session of Rounding It Iowa. You can access show notes and instructions for CEUs and CME credits in the show notes. And we again look forward to you joining us on Rounding It Iowa.