

## Is Food Medicine? The Role of Nourishment in Eating Disorder Recovery

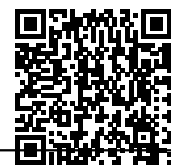
Eating disorders (ED) are serious and sometimes fatal illnesses that cause the sufferers to become obsessed with food, body weight and shape, and severely disturb their eating behaviour. Common eating disorders include binge eating disorder, bulimia nervosa, and anorexia nervosa. Recent research around the neurobiology of eating disorders has changed the way we address nourishing ED patients during treatment. Where we once thought of food as a symptom, and only important to prevent death by starvation, we now understand the critical importance of early intervention and full weight restoration. These recommendations challenge old paradigms about the cause and meaning of ED symptoms. This talk with Dr Angela Guarda of Johns Hopkins Hospital, Dr Jennifer Gaudiani and nutritionist Therese Waterhous will draw out the role of nourishment from the perspectives of someone with lived experience as well as leading clinicians in the medical and nutritional treatment of these dangerous brain disorders.

Laura Collins Lyster-Mensh, executive director and founder of the non-profit F.E.A.S.T. will co-host the panel. She became an activist for improved eating disorder treatment after her teen daughter recovered from anorexia. Tabitha Farrar, a survivor, author and an eating disorders coach will also join us to share her experiences and inform the panel.

### Full Transcript:

**Shweta Mishra:** Good evening and welcome to CureTalks. This is Shweta Mishra, your host and today we are talking about eating disorders. The National Eating Disorders Awareness week is coming up next week between Feb 25 and March 3 and to highlight the advances in research and treatment in this field today we are trying to answer the question – Is food medicine, for patients with eating disorders, and further discuss the role of nourishment in eating disorders recovery with our eminent experts, Dr Angela Guarda, Dr Jennifer Gaudiani, and nutritionist Therese Waterhous. Dr Guarda is the Stephen and Jean Robinson Associate Professor of Psychiatry and Behavioral Sciences at the Johns Hopkins School of Medicine and Director of the Eating Disorders program at Johns Hopkins Hospital. Dr Jennifer Gaudiani, a Harvard and Yale graduate has been a leader in the eating disorders field for over 10 years and served as the Medical Director at the ACUTE Center for Eating Disorders prior to founding the Gaudiani Clinic.

Therese Waterhous is a PhD and a registered dietician specializing in eating disorders with over 25 years of experience now. She was one of the Founding Board members for the international nonprofit advocacy group FEAST-ED, the full form for which is Families Empowered and Supporting Treatment for Eating Disorders. Welcome to CureTalks Dr Guarda, Dr Gaudiani and Therese. Eating disorders are serious illnesses that cause the sufferers to become obsessed with food, body weight and shape and severely disturb their eating behavior, sometimes to the extent that it may also become fatal. Recent research around the neurobiology of eating disorders has changed the way we address nourishing eating disorders patients during treatment. In the coming hour, our experts will talk about all of this and more with our panelists, Laura Collins Lyster-Mensh and Tabitha Farra. Laura who will also co host the talk with me today, is the Executive Director and founder of nonprofit F.E.A.S.T. A writer by profession, she became an activist for improved eating disorder treatment after her teen daughter recovered from Anorexia. Tabitha is an author and an eating disorders coach who fought with Anorexia for 10 long years before recovering by adapting the principles of family based therapy and developing her own neural rewiring techniques to achieve mental freedom. I welcome you to the show Laura and Tabitha and we will be discussing questions sent in via email at the last 10 to 15 minutes of the show. So audience can email their questions to [shweta@trialx.com](mailto:shweta@trialx.com) or post



their questions on the website as they are listening to the talk and we'll try our best to answer them as time permits.

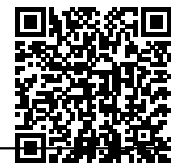
So I'll begin with you Dr Guarda to just, to give us a brief background on eating disorders. Could you please tell us what lies in the etiology of eating disorders or what is the biological basis of it? And if you could comment on the common types that people should be aware of?

**Dr Angela Guarda:** Sure. And it's a pleasure to be here today with you all. The etiology or the cause of eating disorders is what we call multifactorial, meaning it's pretty clear there isn't one cause. But in thinking about what leads to an eating disorder, one way of conceptualizing the risks is to think about what predisposes, what precipitates and what perpetuates an eating disorder. So in terms of what predisposes to an eating disorder, we know not everyone is equally vulnerable and that genes play a role in vulnerability. So individuals who have first or second degree relatives with an eating disorder are at higher risk. We don't know yet exactly what those genes code for and it's probably many genes with small effects, but they may contribute to some, for instance, of the personality traits that we know puts you at risk, like perfectionistic rule bound, individuals, or some other physiological predisposition. In terms of what precipitates the onset of an eating disorder, we know that certain things seem to happen around the year of onset of an eating disorder and they include certainly engaging in dieting behaviors. Mostly these disorders occur around puberty and primarily in females, but by no means exclusively. They also are often associated with some kind of stressful events. Sometimes it's a viral illness that affects appetite for instance, or GI function. Or it may be a positive stress or like dieting in order to prepare for marriage. And then in terms of maintaining or perpetuating factors, we know that has a consequence of the behaviors and of starvation in the case of Anorexia, certainly associated with eating disorders, there were physiological changes that come to make it hard to stop, much like an addiction with substances, it becomes difficult to stop the behaviors that you're engaging in an eating disorder. And that's for instance, just since simply thinking about gastrointestinal function, if you're starving, your body tries to conserve energy and to shut down any systems that can and it does slow digestion. So constipation and feeling full complicate eating more in Anorexia as an example. Now the second thing you asked me was, how do we categorize eating disorders? And I think it's important to realize that these disorders really aren't distinct categories. They occur across spectrums and that there is frequently transition from one eating disorder into another over time.

**Dr Angela Guarda:** However, the main three that we think about are Anorexia Nervosa, Bulimia Nervosa and Binge Eating Disorder, and in distinguishing those three, it's useful to think about the dimension from eating restraint, extreme dieting to eating disinhibition or loss of control eating. In Anorexia Nervosa, what distinguishes that syndrome the most from the other two is not really just eating, bingeing or restricting its weight. So if you are in a starved state and have suppressed your weight or low weight, you meet criteria for Anorexia. And some patients with Anorexia do binge and/or purge by vomiting or laxatives, but they are driving down their way. By contrast, therefore, in binge eating and in bulimic patients are normal weight or high weight and binge eating and bulimia are both characterized by what's called binge eating episodes and bingeing is the consumption of a large amount of food associated with a sense of loss of control over eating and often with feelings of shame, guilt, eating while full, or even beyond the point of fullness. And the difference between binge eating and bulimia is that in bulimia, patients compensate for the binge in some way, often by self inducing vomiting or taking laxatives or exercising right after a binge or fasting right after a binge whereas in binge eating disorder, there isn't a prominent presence of compensatory behaviors. So I'll stop there.

**Shweta:** Sure. Thank you so much for that comprehensive overview doctor. Dr Gaudiani, I'll move over to you. So is there a particular age that the symptoms of eating disorders begin to manifest? How early can you know, I mean, how would the parents know if their child is just different when it comes to food, he's a fussy eater or a choosy eater or he/ she really has eating disorder?

**Dr Jennifer Gaudiani:** Individuals can begin developing eating disorders at a wide variety of ages, but as Dr. Guarda said it's most common to see eating disorders diagnosed during adolescence. However, data are showing that people are developing eating disorders at earlier and earlier ages. And additionally, we



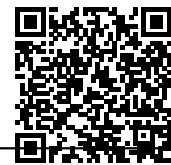
know that there are older individuals, both men and women, in fact, people of all genders who may have had subclinical disordered eating over many years but not reach diagnostic eating disorder classification until older life, particularly at times of life transition, for instance, the children moving out of the house or for women going through menopause. There are two other types of eating disorders that I'd like to add to Dr Guarda's excellent review of the three basics. One of them is called Avoidant Restrictive Food Intake Disorder or ARFID and that speaks to what you asked about regarding picky eaters versus children who might be on the early stages of an eating disorder. And ARFID is defined broadly speaking, as typically taking place in younger children with a slightly greater male predominance in which children are so picky, having only a few foods that they're willing to consume.

**Dr Jennifer Gaudiani:** And that that leads to clinical malnutrition in which they either lose weight or stop gaining weight and growing appropriately. And ARFID often comes along with sensory processing difficulties. It may be found in people who are on the autism spectrum and may be found in those who have extreme anxiety for instance, about a swallowing incorrectly or about vomiting. So ARFID can occur and I think what parents should be watchful for is, when a picky eater stops making their growth landmarks and it really becomes more pathologic or interruptive of social activity. Furthermore, the other eating disorder that I want to highlight is one called Atypical Anorexia Nervosa, which is categorized in the sort of other category within the DSM-5 interestingly showing the weight stigma that is manifest in the DSM-5, which is the manual that diagnosis mental illnesses in which an individual has all of the distortions of self perception as well as the restrictive eating patterns of someone with Anorexia Nervosa, only they're not visibly emaciated.

**Shweta:** Okay. All right. Thank you for that answer Dr Gaudiani. I'll move to Therese now. Therese, I have one audience question for you. What is the most common diet that you often prescribe to patients with eating disorders and does the caloric value of food gain priority over nutrition quality? I'll also read out the audience questions so that you can answer it together. So one of the audience question is that we found that many clinicians and RDs prescribed maintenance low calorie and lipid plans that kept our daughters eating disorder thoughts and behaviors entrenched. In the recent years we learned that higher lipids and calories are what helps the brain healing process. So what has been your experience in the importance of lipids and higher calories in nutritional rehabilitation and is this the food that they need as medicine for optimal brain functioning?

**Therese Waterhous:** Well, I thank you for having me on CureTalks. I think I'll start with your initial question if I may. So the initial question was what is the most common diet that I prescribe to people with eating disorders. So I have to think, first of all, it really depends on who is walking in the door, so what person with what diagnosis, at what age. And we really have to evaluate what is not normal about their eating. So are they restricting, are they restricting then bingeing, are they bingeing and purging? And then how do those abnormal eating habits affect their physical health and their nutrition status? So somebody who has been restricting newly diagnosed adolescent, for example, who will be refed in the outpatient setting at home by parents that could look different from somebody with severe and during anorexia together who's been sick with that disorder for 50 years. And this gets to your second question. So if somebody is starved, of course we want to increase the calories, I also pay a lot of attention to possible micronutrient deficiencies because if somebody has not been eating well for several weeks or months, things like thiamine can become low within two to three weeks due to its short half life. And so you have to pay attention to the whole milieu of nutrients coming in, the types of nutrients and what the diagnosis brings with it. So in binge eating to fill to your point, you asked does the caloric value of food take precedent over nutrient quality? I would say for the most part, no. We want to pay attention to all nutrients that could be affected because all nutrients go into maintaining the body in the best physical state. That said, if I have an older adult who's had anorexia for say 30 years, that's when maybe you do alter quality a little bit, just in favour of let's get calories at the end.

**Therese:** So you do sometimes prioritize according to what the person is able to do. We always hope that with a newly diagnosed adolescent we can get home based nutrition restoration happening quickly and effectively. So those are two different scenarios in binge eating disorder and even Bulimia, oftentimes you see very chaotic eating. And with binge eating disorder, I frequently see people restricting and then bingeing. So again, I like to do a full diet history, look at what foods are being consumed and then Bulimia – what foods



are consumed and retained. And then you have to assess how does this affect the overall nutrition and then treat that in a standard nutrition protocol. So every person is pretty different. I never prescribe one diet or one type of meal plan. You have to evaluate the individual eating behaviors or eating disorder behaviors and then you'd have to create goals specifically designed to correct any possible nutrient deficiencies. As far as the audience question, so what you do want and a start state and the research and fairly robust about this is getting a person back to a state of health and an appropriate weight pretty quickly. You don't want to take years to do that job. So oftentimes the diet is higher in calories and fats in the initial phase of renourishing somebody who has starved. Fats are very convenient way for us to get calories up in a lower volume, which is often better tolerated by people with restrictive eating disorders. So, and I do think so often times you see with restrictive eating disorders, a higher fat, higher calorie diet. Now specifically which lipids and how many lipids are required for proper brain function, I don't think research is clear on that. But what is clear is getting people renourished sooner rather than later. And oftentimes, you have to have a high calorie diet and one of the best ways to do that is increased the fat pumped in.

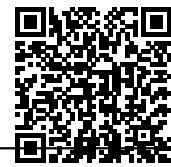
**Shweta:** Sure, absolutely. Thank you so much for your answer Therese. And at this point I would like to invite Laura to the talk, Laura your daughter had anorexia, would you like to share your experiences and challenges being her caregiver before moving onto your questions?

**Laura Collins:** Yes. Thank you so much for having me on this panel. I thank the world of all of your work and I'm really pleased to be on the team, on the caregiver's side. The caregiver's side really is different than the clinical side and from being the person with the eating disorder and my experience as a caregiver is that, 15 years ago when we were in this situation, we didn't get much information that helped us with our side of things. And so I've been really pleased to see a change in the field towards including and talking directly to caregivers and to understanding the illness better. But I do have to say that the food is medicine piece of this is probably the most confusing for caregivers because we live in a world in which we are told routinely that what we are supposed to do is keep our children thin and it's really confusing to end up in the eating disorder world. And so this food is medicine part is really, I think an important conversation for us all to be having.

**Shweta:** Sure. Thank you so much for that perspective. And I guess you have the opportunity now to ask your questions to our experts today.

**Laura:** Yes, thank you. So Dr Gaudiani, the first question is, could you, I know you mentioned this in your book. What are the main systems medically affected by restriction?

**Dr Jennifer Gaudiani:** Thanks Laura. That's a great question. It's important to note that all eating disorders typically have some component of restriction within them. And when I talk to patients and their families about what happens to their bodies as a result of inadequate nutrition, I start by describing something that I call the cave person brain, which is the part of our brain that runs us as a mammal and evolved over the millennia to be exquisitely sensitive to the absence of adequate nutritional intake. As a result of this wonderful evolution, our cave person brain is exquisitely sensitive to its impression that we must be in a famine. And of course it has no idea what the social context is, whether somebody has an eating disorder or is on a new fad diet or is on a cleanse or whatever it might be. All it interprets is my mammal isn't getting enough food. So I'll go ahead and save my mammal. And it does this in brilliant physiologic ways, some of which are measurable and some of which aren't. For instance, as the cave person brains slows our metabolism in response to inadequate caloric intake, it does so through a wide variety of mechanisms that actually vary from person to person because we're all different genetically. So very common medical manifestations of inadequate nutritional intake regardless of body shape and size include as Dr Guarda mentioned slowed metabolism, what's called gastroparesis, where the stomach takes longer to empty, leaving the person feeling full, nauseated, bloated, and disinclined to eat substantial meals. Constipation is very common, a slowed heart rate at rest and a more rapid heart rate with minimal exertion can also be found with decreased body temperature, cool hands and feet, regrowth of very fine hair on the face called lanugo, which is fetal hair regrowing in order to hold heat in around the face as well as lowered blood pressure. In addition, the brain understands this is not a safe time to procreate and to waste calories on sex drive, sex; for females,



menstruation or for pregnancy. And so in all genders it shuts down sex hormone production in order to spare calories. And interestingly that contributes to fragile bones which may never become fully normal again. So interestingly is there is a wide variety of common physical abnormalities that occur in the face of starvation. And of course when you bring in problems like purging as seen in purging anorexia or Bulimia Nervosa, there potentially life threatening electrolyte abnormalities such as low potassium that can occur as well as physical manifestations such as the swollen salivary glands and reflux and even bleeding from the upper GI tract and in some, it's very important to note that I believe the medical cause of death, most common in Anorexia Nervosa, which carries the highest death rate of all mental illnesses is low blood sugar. Because when the body can no longer receive enough sugar from the diet and it's not getting enough carbohydrates to turn into sugar and it can't break down muscle anymore, the blood sugar will fall and the heart will stop.

**Laura:** That's so great stuff. I am going to ask you one quick other question follows on that, which is how important is it when you just talked about the dire consequences of, of malnourishment, how important is it to reach full normalization of eating and nutrition?

**Dr Jennifer Gaudiani:** It is vitally important to completely recover nutritionally in the context of an eating disorder regardless of body shape or size. For Anorexia Nervosa, it's vitally important to completely restore bodyweight to whatever it is your body naturally wanted to be. And I think you mentioned before there is an undue focus on thinness seeming to equate with health in our society as well as in the medical profession. So it's not uncommon unfortunately for medical professionals to believe somebody has fully weight restored when in fact they may yet need to restore more weight based on familial body shape and size and childhood growth curves. So we really have to individualize that process and not be tricked by our own internalized size stigma.

**Laura:** Thank you for that. Therese Waterhous, a couple of questions for you. One is, how far has the science changed around the role of nutrition and eating disorders in the past 10 well, longer than 10 years in the many years you've been doing this?

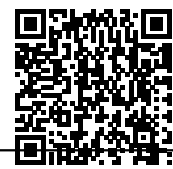
**Therese:** Great question Laura. I think I've been really involved in the eating disorder field for maybe 15 years and I've seen quite a few changes from, and then when you study even the history prior to that, what we've seen is a huge move from, and unfortunately I still do see some primary care providers thinking that, oh, if I just refer this person who I've just diagnosed with an eating disorder to therapy and they do therapy, they'll be fit. Or they can go to a treatment center for a period of time, come home and they're all fit. And so a couple of things related to nutrition. So we know that, I mean, talk therapy can be great, but it alone does not heal a person from an eating disorder. They do have to be eating food, whether it's practicing eating according to a certain pattern. If they have very chaotic eating that you might see in binge eating disorder or really practicing eating adequately, eating enough every day. And I'm a firm believer that there is great therapeutic value right there in the person having to attend to normal eating day after day, preferably with good support from family or significant others in their lives. That's a hard thing to do. So that constant practice of eating normally, I think is very beneficial and we're finally recognizing that. Yeah, I think that's a huge change. And then also just realizing that in the undernourished person, their brain isn't quite working right. It's almost impossible for them to fully heal without adequate nutrition.

**Laura:** If you could get one message out to your colleagues in the dietary field about eating disorders, what would it be?

**Therese:** Well that's a good question. I think it would be, the number one message would be, please don't do this unless you're adequately trained and really look into that. Spend a few years getting trained, getting mentored, working with experts, going to conferences, get thoroughly trained because these are complicated non-intuitive kinds of disorders. Then you really have to understand deeply how they act, how they work, otherwise you will make mistakes. So I think adequate training is foremost.

**Laura:** Excellent. Dr Guarda, what surprised you most in the most recent research about eating disorders?



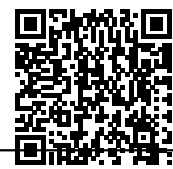


**Dr Angela Guarda:** Well, Laura, I think that we've seen a real shift in our understanding about eating disorders and in the research since I started in this field. In the 90s, this was real, most eating disorders were really thought of as socio cultural conditions. And instead, I think what we have learned is that these are really brain diseases. And to understand them, we really have to understand the science of feeding and what goes wrong in eating disorders. For instance, we know that feeding is controlled by two drives in a normal eater, what's called the homeostatic appetitive drive, which is a system that controls when we get hungry and when we feel full based on gut hormones traveling through our blood stream to our brain and telling us we're full and neural signals from the stomach stretching for instance, again, feeding back to the brain and telling us we're full. And that works in a way similar just the way sleep is governed for instance, a kind of biorhythm way, there's this constant communication, hormonal communication between the gut and the brain that tells you when you're hungry and you're full. Now that system is clearly dysregulated in individuals who develop an eating disorder and more so the more chronic the eating disorder. But the other system that drives feeding in a normal healthy person is what's called a hedonic drive. Feeding is very rewarding otherwise the species wouldn't have survived, sex and drugs and food are really natural rewards. We know about the drugs, but certainly sex and feeding are important to the survival of the species. So there also is a whole reward system in the brain that involves a number of different brain regions and that is activated by food.

And so it's really the interplay between these two systems, the hedonic system and the homeostatic system that control normal feeding. And both those systems are awry in eating disorders, obviously in different ways depending on the eating disorder in the individual. But increasingly the research has been able to focus on that and to start to understand what brain systems are involved, what neurotransmitters are involved and that this really is not just a disorder that is caused by, for instance, the fashion industry promoting thin models, which used to be kind of the driving concept because that people thought of. So I think that's been a really promising shift in the research. The research makes more sense now. We understand these as a physiological problems, not just psychological ones in a sense, they're really a holistic problem. I mean, I think that's what I would say in terms of kind of what's shifted in the focus of research and eating disorders. And it certainly makes sense. This is as much a disease as many other medical conditions and it's sustained by altered physiology much in the same way as for instance, addiction is probably.

**Laura:** Bringing it back to the nutrition, just really quickly, can you recover from an eating disorder psychiatrically if you don't normalize nutrition?

**Dr Angela Guarda:** No, I think that's an impossibility because fundamentally these are disorders of eating or dieting in many cases, and they are behavioral conditions. They're what we call a motivated behavioral problem. In other words, over time, the behaviors associated with eating disorders, whether it's dieting, bingeing, vomiting, laxatives, exercise may become increasingly driven and ritualized. And they become, in a sense, kind of a consuming passion to the extent that they rule the affected person and they preoccupy them most of the day interfere with their social function. And they have the many of the physical problems that Dr Gaudiani referred to. So that you can't think your way out of a disorder. You essentially dieted or ate your way into and you can't talk your way out of it either. You really have to eat your way out of an eating disorder and that requires the right kind of nutritional guidance. I think that in terms of what's changed in what we know about nutrition, which Therese was touching on, we understand that certainly in Anorexia for instance, there used to be the belief that we had to help patients restore their weight very slowly for fear that they would develop very serious medical complication of refeeding syndrome. But increasingly it's clear that we have been a little bit too conservative in some ways about how fast we expect patients, for instance, to gain weight. And as, I think Therese mentioned, it's important to fix nutrition early because the longer the disorder goes on, the more we worry about maintaining factors becoming more prominent or about even scar effects, we don't know what the effect of starvation on the brain after years is. We don't know if everything is fully reversible. We know most of it is, but we don't know if everything is. So I think it's really important to address nutrition early. And the other thing that's important is, and again this refers to some of what's been said is the goal should be to learn how to eat a wide variety of foods at regular meals in normal patterns because there is some evidence to support the fact that the variety of food consumed as well as the fat content are important to prognosis. Certainly for Anorexia, we don't know as much about that for Bulimia



and binge eating, but there's every reason to think it's similar and are fit.

**Laura:** Thank you. I'm going to turn it over to Tabitha Farrar.

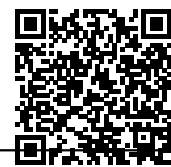
**Tabitha Farrar:** Hi there, am really happy to be here. So I have some questions and I am starting with Dr Jennifer Gaudiani. And my first question to you Dr Gaudiani is what are the commonly overlooked malnutrition symptoms that are seen in people in larger bodies?

**Dr Jennifer Gaudiani:** Thanks Tabitha. That's a wonderful question and speaks to a topic I'm really passionate about because it's so important to say that it's the vast minority of people with eating disorders who are invisibly emaciated bodies and that's not often well understood. So the first thing to say in answer to your question is what is called internalized size stigma. That is the set of scientifically inaccurate but popularly believed connections between the thinness and other traits that we all possess even when we actively try to recognize them and cite them, causes us first to make people invisible in the doctor's office when they're not in emaciated bodies and they say they're having trouble with food. So I would say the first missed feature that occurs in someone in a larger body with an eating disorder is that they could possibly have an eating disorder at all or even a restrictive eating disorder, not one that involves bingeing in any way. Very often my patients in larger bodies will tell me that in physician's office, even when they reveal that they have an eating disorder and that they're eating really restrictively, the doctor will disbelieve them and say, well, you must be bingeing because you're big. Or they'll say, no, I think you're lying. In fact, what you should do is feel good about your weight loss because clearly you need to be on a diet because thinner is healthier. This is scientifically inaccurate and someone in any body shape or size can have an eating disorder and they have the same medical manifestations as anyone else. In fact, really important research by Dr. Golden et al has shown that individuals with atypical Anorexia Nervosa have just the same medical manifestations as those with Anorexia nervosa and they still have doubled the death rate of age matched peers, so it's the doctors have to know what the medical manifestations of eating disorders are and then remember to look for them with curiosity and thoughtfulness and compassion in all patients regardless of body shape and size.

**Tabitha:** Thank you. My second question for you, Dr Gaudiani is what are some of the ways that doctors who may not be specialized in restrictive eating disorders might overlook the impact of an eating disorder or another medical condition that the patient might have and vice versa?

**Dr Jennifer Gaudiani:** Yeah, that's a really important question. As an internist who specializes in eating disorders, my whole goal in life is not only to help remove the roadblocks occasioned by the physical manifestations of eating disorders that get in the way of patients recoveries, but also to thoughtfully diagnose and ameliorate other medical conditions that are not specifically due to the eating disorder, but that are influenced by it, that may also get in the way of recovery. For instance, there's a condition called the Postural Orthostatic Tachycardia Syndrome or POTS. We don't know as much about POTS as we will in the future. But what we do know is that it's an autonomic nervous system error that part of our nervous system that runs the parts of our body we're not consciously in control of, that causes the heart rate, but not the blood pressure to really spin out of control when patients go from a seated to a standing position and it comes along with recurrent passing out, body pain, profound fatigue, sleep disruption, and other gastroenterological problems. So POTS isn't caused by eating disorders as best we know, but many people with eating disorders have POTS. And what I tell my patients is I cannot guarantee that when you're recovered from your eating disorder, your POTS will also vanish. But I can guarantee you that as long as you're putting your body through the stress of eating disorder behaviors, your POTS will be worse. And I think that's true for a number of medical conditions such as irritable bowel syndrome, migraines, and others that fundamentally fall into the broad category of problems with the mind-body connection, where when the body and mind are stressed, other medical problems become worse.

**Tabitha:** Thank you. My next question is for Therese Waterhous. Therese, if food is medicine, what changes do you think are needed in the eating disorder field to ensure that nutritional rehabilitation is really prioritized?



**Therese:** Thank you Tabitha. That's a wide sweeping question. So changes within the whole field, I would say if I had one big wish, it would be to see more formal training in what I call true multidisciplinary care. Years ago I had formal training in multidisciplinary care for children with severe medical conditions. And in turn, multidisciplinary care, you don't have a leader per se or leadership changes within a team. Instead of having four separate brains within a team, it's as if the team functions with four brains that are melded together. So I have often wished, for example, that therapists I work with, were more aware of the medical and nutrition consequences and therefore could sort of shore up the voice of the team to patients because oftentimes teens get split hearing conflicting information from the different team members. So if I had one wish or one change for the eating disorder field as a whole, I think it would be to really promote true multidisciplinary training and care.

**Tabitha:** Thank you. My second question is when educating parents and loved ones of children with eating disorders, what are some of the most common complications of experience regarding that nutritional rehabilitation process?

**Therese:** So I'm assuming you mean complications in terms of the educational process, is that right?

**Tabitha:** That's right, yes.

**Therese:** So when you talk to parents, I think you see a variety of things from straight denial like, this shouldn't be so difficult, why can't they just eat? This really isn't a problem, we're just talking about food to a very frequent issue that you have to train parents about is, especially with children and adolescents, you can't rationalize with them. I see parents oftentimes going through painstaking calculations of calories and nutrients and you need this much if you exercise this much and in Anorexia Nervosa, especially in the younger population that kind of goes in one ear and out the other. So rationalizing doesn't work and we know that. And then I think just helping parents be the strong parents that they have to be when sitting at the dinner table with that eating disorders, they really do have to be firm yet loving. They need to be consistent. They need to be confident, they need to be patient. But they need to really insist that full meals are happening. They have to learn to not negotiate with the eating disorder. They have to appreciate that these are fear based disorders, especially Anorexia Nervosa. But really all the eating disorders come almost all ways with stress, anxiety and true fear of the consequences of eating normally. So parents have to learn that and appreciate it and have compassion for this for their child.

**Tabitha:** Thank you. My final two questions to Dr. Angela Guarda. My first question is, how has your perception of the role of nutritional rehabilitation in eating disorder recovery changed over your career?

**Dr Angela Guarda:** Oh, hi Tabitha. Well I think that in a couple of ways, I did train at the Maudsley so I was aware of the importance of involving family, but I think that we have become more aware of the importance of involving family for all patients, not just adolescents. And Laura has been a really important proponent in the importance of family based approaches. But I think most people are now recognizing that involving spouses or involving parents of young adults also is important to supporting the individual and helping them change their behavior, especially in the case of Anorexia Nervosa, patients are very ambivalent about changing their behavior around food. It makes them extremely anxious as Therese said to eat outside their rigid rules and the support of significant others is crucial to success for many. So I think that's one thing. I think the other I kind of alluded to earlier is that there's much better recognition of the fact that food comes first. In other words, that, it is the crucial medicine for patients with eating disorders, normalizing eating and if underweight restoring weight are essential to recovery. So I think that was less evident years ago and there was a more of a thought that psychotherapy would be enough to help motivate patients to eat. But clearly addressing behavioral approaches are the most effective and that's been shown by the research cumulatively over time. The two things, behavioral approach is focused on food work best and that early response is the best predictor of recovery both for binge eating spectrum disorders and for restricting disorders. So I would say probably those two things are sort of the biggest changes. Yeah, I'll stop there.

**Tabitha:** Okay. Thank you. My second question is, how has the role of the psychiatrist changed as a person





moves from a state of malnutrition to a state of increased physical well or nutrition rehabilitation?

**Dr Angela Guarda:** Well this is a natural follow on to what we were just saying. The role has to change because although the primary goal is normalizing eating and weight for someone underweight or at least stabilizing eating behavior for all patients, that is necessary but not sufficient for recovery, especially in the chronically ill patient who may have suffered not just physical consequences of the disorder, but increased socialization and decreased function over time. What's important is to provide assistance and support psycho therapeutically to help engage the person in a productive life. So that would include helping them both with managing body image and mood symptoms, but also in addressing function, finding other things to do in life, relationships, occupation school, but really helping them return to a functional state. So I think that what you see in therapy is that the initial focus is really on stopping the behaviors and normalizing eating. And then the therapy kind of shifts more to looking at a function as a whole and assisting patients in a kind of emerging from the eating disorder back into a healthy and productive life flourishing in a sense.

**Tabitha:** Thank you.

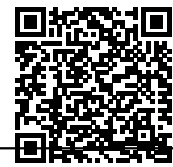
**Shweta:** Well, thank you Tabitha for your questions and Dr Guarda for answering them. Tabitha, I have one question for you. So you dealt with Anorexia for 10 long years. Would you like to give any advice to our audience based on your experiences?

**Tabitha:** Yeah, I have two main points that I think are relevant to this conversation. And the first one is that I think it's often easier as a patient or a person who was suffering from an eating disorder, but also actually as maybe a parent or even a treatment professional. It's often easier to focus on everything else other than eating because eating is really difficult. That's where it really, that's a hard bit. It's difficult if you're the person in recovery, it's difficult if your people caring for personal recovery, the eating is the difficult bit and so awesome. It's easier to look at. Let's, let's try and find something else maybe psychologically to focus on and we'll do the eating bit later and we'll hope that the psychological bit helps with eating bit. And so I know that for myself, I really didn't want to focus on the eating bit and I couldn't recover until I force myself to focus on the eating part. But I also think that's true of treatment providers also. And my second point is that a person doesn't have to be completely starving themselves to be restricting enough that they can't make a full recovery. Because I think for many people in recovery, we might be able to get herself to eat a little bit more and then we're thinking, well, I'm not gonna, I'm not really restricting. I'm eating three meals a day, but within that three meals a day, they can still be heavy restriction if the body is asking you for more food. And it's the understanding that you don't have to be restricting heavily in order to be restricting enough to be unable to make a full recovery.

**Shweta:** Sure. Thanks for your advice Tabitha. Laura. would you like to give some advice to our parents who are listening, who are caring for the children with eating disorders?

**Laura:** Yeah. So I think that enduring thing that I've learned in the last 15 years of watching them and families and seeing my own family's trajectory is that we need to take the role of case manager seriously. We can't wait for other people to educate us. We can't wait for other people to empower us, to tell us to get some sleep, to read a book. We have to take it on ourselves. And, it's a little intimidating. It's scary, but it's not rocket science. And we can learn a great deal about this disorder and unlearn a great number of things we have to unlearn when we were me and comedies. But I have just been with the most heroic, smart, creative families around the world, supporting their loved ones to full recovery. And a lot of families are dealing with some very complicated situations. It may not lead to recovery, but to genuine improvement in their life and keeping families together. I am amazed by families and we kind of been, we haven't been trusted completely. But I think we have a lot more to give and we can't wait for the responsibility to be given into us. We need to take it.

**Shweta:** Sure. Well all the best for a future of F.E.A.S.T (FEAST-ED) the organization that you are a leading Laura. So thank you for your answers. With that, I'll just move on to the audience questions. We have a high number of audience questions that have been posted on our page. So I'll start with you Dr. Gaudiani, there

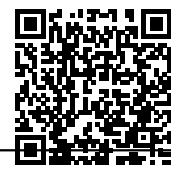


are a lot of questions posted based on BMI. So, the first one says, how do clinicians setting weight at low normal BMI prevent recovery? So the person goes on to write that, our daughter suffered with anorexia since age 11 and had clinicians who did not set accurate weight based on her early growth charts weight. So she wants to ask, why do clinicians consider BMI of 19-21 weight restored for all when many of them were not meant to be at that low set point? How does that keep someone ill?

**Dr Jennifer Gaudiani:** I offer compassion for this family's experience. The fact is the BMI is very limited metric and it has a very limited utility. Ultimately I never recommend going on BMI. I think that each individual's weight restoration when weight needs to be gained has to be understood on an individual level that takes into account the individual's prior pre illness, body shape and size. If they were a child, it takes into account their growth curves, familial body shape and size if the genetic parents are known, for women one can use prior normal non hormonal menstrual cycles as a marker but not the only marker of wellness. And ultimately what I say to my patients is I'm not going to create some edict at the very beginning of our relationship that we are going to adhere to rigidly throughout your recovery. In fact, I don't even know why we need to talk about what the goal is right now, if we're talking recovery from Anorexia Nervosa, let's get you nourished, let's get your brain fed and your body healed. And as we start getting closer to your eating intuitively and nourishing yourself with a wide variety of foods, and as your body shows me that it is now recovered from its low metabolic state, then we can start thinking about what we're looking at. Because as your questioner asks, some patients maybe truly appropriately, beautifully, healthily weight restored on the lower side of the spectrum. And some patients may not achieve that state until they're at a BMI if we must use that term that physicians would consider too high. So we have to continually investigate our internalized size stigma and individualized where we're helping patients get to.

**Shweta:** Right. Alright. Thank you. Thank you for that answer. Dr. Guarda, this one's for you. So we have got two questions on treatment refusal. So the person says, how do you encourage someone on an outpatient basis who is grossly underweight anorexic to eat, eat, eat, so that they can get to a point where they can think clearly and recover since a clear mind and a better perspective is apparently only an option at a higher weight level. So, she goes on to say that I have a friend who is a longtime sufferer of Anorexia, but most of the organizations will not treat her for liability reasons and the present organization deem her too risky to treat. So your thoughts on that?

**Dr Angela Guarda:** Yeah, this is one of the big challenges about treating anorexia both for families and for clinicians and in a sense also for patients. And it goes back to kind of what I alluded to earlier, that the nature of Anorexia is to be scared of an ambivalent about committing to treatment that involves weight gain, treatment that involves talking as much more palatable or more acceptable. But patients are scared and gaining weight is an aversive experience. And it is not uncommon for this scenario to be presented to me, of a patient who presumably as an adult has been sick for a very long, is very underweight and is very highly ambivalent about committing to treatment. And the question is really about how can she eat as an outpatient. It's very difficult to treat this. I mean, assuming this is a chronic patient with chronic anorexia who has failed prior treatments, it's very difficult for these patients to get better without a structured program. And there aren't a lot of programs available anymore in the US that can treat of someone who's medically unstable. So although it says here that she had been denied for liability reasons from private programs, it may even be for legitimate reasons that freestanding residential programs may judge her too critically ill medically, to treat in their setting, to be a correct judgment. So the problem is that is trying to motivate or to help patients make that step into inpatient. Because most adults who have failed treatment have been chronically ill, require a higher level of care or a structured program, a structured behavioral program. And the question, your next question could be, well, how do those programs work? I mean, how do we convert patients in a sense to being scared of this treatment to accepting the treatment? And that's kind of at the crux of the successful treatment of Anorexia and it's difficult, but really it involves having skilled nursing staff and nutritionists and occupational therapists who can help engage the patient and get her to eat. And really the other thing that helps patients eat is to be around other patients with eating disorders who are eating. So a successful program can generate peer pressure. And we know that group therapy for instance, is one of the most effective modality for the treatment of other behavioral disorders like addiction, because hearing from someone else who's been through the process and have made progress is much more convincing than an



expert telling you you need to eat.

**Dr Angela Guarda:** Like hearing it from someone else, like Tabitha was talking about her own life history and her job as a coach really mimics, to hear others, to mentor others or to help others who've if you're in recovery, often you have a more compelling voice to the sufferer. So that doesn't exactly answer this question. But the other part of this question may be, if someone really has life threatening Anorexia, what can those who care about them do and there is in extreme cases a role for potentially for involuntary treatment in the sense that we know from studies that even patients who are admitted to the hospital under pressure or involuntarily, the majority of them come to recognize that the admission was helpful over time. In fact, we published a study showing that of patients, these weren't involuntary patients, they sign themselves in, but they sign themselves in only under pressure from their family or employer or spouse. Within two weeks half of those who said, I don't want to be here, I have no reason to be here, I'm just being forced to be here by my family, two weeks later, half, nearly half of those individuals said, well, I don't like the way they pressured me into the hospital, but I recognize I need to be here and I'm benefiting from the treatment and I want to stay of my own free will. So really engaging patients, getting them to take that first step in a sense or dive into treatment is what the challenge is. And that's something, that I'd love it if we can take the patient in but we don't.

**Shweta:** Sure. Thank you for attempting to answer that question Dr. Guarda. Therese, this one's for you I guess. Regarding inpatient treatment have you experienced issues turning patients who struggle with Anorexia Nervosa into bulimics after refeeding them upwards of 4,000 calories per day for weight gain? Many hospitals and/or providers have made no attempt to condense the calories and the meal sizes can be absolute struggle, just like a Tabitha said?

**Therese:** Could you repeat the first part of the question? I believe you talking about an inpatient situation.

**Shweta:** Exactly, so the person says in your inpatient treatment, have you experienced issues turning patients who struggled with Anorexia nervosa into bulimics after feeding them upwards of 4,000 calories per day for weight gain? So the person says that, I've been in treatment and the volume of food can be daunting once it reaches a maximum of 3,500-4,000 calories per day. So the person's personal experience, he/she goes on to say that the hospitals don't make attempts to condense the calories or reduce the meal sizes basically.

**Therese:** Well, let me just say I haven't worked on an inpatient unit. I'm strictly an outpatient provider, but I work very hard. I have had outpatient clients that needed 3,500, even up to 6,000 calories per day for a young man with Anorexia Nervosa. And I think it's imperative that you work real hard to try to condense calories, incorporate products like BeneCalorie. I'm famous for my extremely high calorie shapes pre written, the support people are blending in oils and fats. That's for the utility of lipids, I think really lies is that you can provide more calories per unit volume, which is definitely beneficial, especially during for restrictive eating disorders during that weight gain phase. So, yeah, I think any provider needs to work real hard to try to condense that volume. As far as seeing people with Anorexia turn, uh, you know, become bulimic. Yes. Some do. I think as Dr Guarda has already said these are disorders that exist on a spectrum and we do see changes in behavior over time in some clients. So, but that can happen with or without a high volume of food too.

**Shweta:** Yeah. Okay. There's one other question based on type of food and calorie level. So it says is it bad to eat a lot of sweet or processed food when recovering from a restrictive eating disorder, especially when clinically underweight and is veganism damaging recovery?

**Therese:** Well, I do come from a school of thought where there aren't bad foods. All foods can fit. That said, and I'm not sure what the athletes and processed foods. As a nutritionist, I do strive for balance. So certainly have some sweets, have some processed foods, have some other kinds of foods too, have produce. You don't want your meals to be 100% fruits and vegetables as I see sometimes, but no, I think having some type of balance to let your body fully heal because a diet composed of all they heavily processed foods,



maybe you're not quite getting everything you need. So again, I think taking an individual approach to that. And then as far as veganism, veganism has traditionally been very frowned upon in the eating disorder world and certainly right now and seeing an epidemic of adolescents who are vegetarian or Vegan, many of them for environmental reasons they state. And so I think the whole team has to thread through this and assess motivation to be that way. The way I assess things, I call it rooting out the eating disorder. It's like, sure you can be Vegan. I'm a nutritionist. I know very clearly how to create a high fat high calorie and I emphasize that high fat, high calorie Vegan Diet, that's not hard. Let's do it. And if I start seeing a lot of about that. Then, that tends to give you one type of answer. That said people with Anorexia are going to be afraid and inflexible about any type of weight gain meal plan. But I think veganism is possible, right? You have to carefully watch and make sure they're getting everything but also have your antennas up because sometimes that is a cover for eating disorder behaviors.

**Shweta:** Right. Okay. Thanks for that answer Therese. Dr Gaudiani, I guess you can take this one. It's regarding body weight distribution. The person says, I hear it's common for all ones weight that has just be gained to load on the stomach and the distribution of weight seems disproportionate to the rest of one's body. How long does this process of redistribution usually take?

**Dr Angela Guarda:** This is Dr Guarda, but would you like me to answer, we may have lost her. That's a very good question and it's certainly a question that patients ask often and a central weight redistribution is common during receding in Anorexia, especially in older patients who have been more chronically ill. And that's, we don't know exactly why that is, but presumably it's probably related to hormonal changes that occur in Anorexia, specifically low estrogen and high cortisol, both of which can cause a central fat distribution. There is data to show that that distribution does change, it redistributes generally within a year so that it is temporary. But reassuring patients of that is very important because they obviously they're often worried about their stomach or central adiposity, central fat distribution and helping them trust that it will spread over the course of a year, is important to preventing them from relapsing. Otherwise you can refeed them in a hospital and help them gain to a normal weight and then they'll leave the hospital and immediately lose the weight. We know that relapse following weight restoration is highest within the first two years, certainly highest within the first six to nine months. In fact, if we can help patients maintain their weight and eat normally for six to nine months after weight restoration, the majority of those will stay well and it will recover. So this is, this is important information to provide to patients. That's a great question.

**Shweta:** Sure. Thank you for that answer. Dr. Guarda, thanks for stepping in. One last question for Therese or Dr Guarda, whoever wants to feel this one. It says is it safe for someone with a BMI below 12 to re feed at home? I guess you answered a part of this, but the second part, is there a vitamin protocol I need to follow, if I'm doing from home?

**Dr Angela Guarda:** I would be very hesitant to say it is safe for a patient of a BMI of 12 to refeed at home and it would for the majority the answer would be no. They probably should be in a medical setting at least for the first two or two weeks or so to make sure that someone is tracking their electrolytes and making sure they don't develop refeeding syndrome or low phosphate, which is one of the cardinal symptoms since that can be life threatening and cause heart arrhythmias. Now sometimes it varies by age two for instance, in an adolescent, a low BMI may be less concerning than it is an adult who's been chronically ill and who has more physiological consequences and damage from chronic starvation that puts them at higher risk. But overall I would say someone with a BMI of 12 should be in an inpatient medical setting at least for the first two weeks or so of receding and either agree with that as well.

**Therese:** I would agree with that as well. There is something I frequently refer to as the maintenance phase because I see often in the outpatient setting that the parents and providers of course they want this whole ordeal to be over as quickly as possible. So somebody may go to a treatment center, come home, wait, restored or eating more normally. And there is a strong tendency for people to say, okay, they're fixed, everything's better. But that's actually, this was really true with Anorexia Nervosa. That's a really dangerous on thin ice phase because now this person is re entering the home community, re engaging with things that may be potentially stressful and to boot, they have a different looking body, a different feeling



body, and they're expected to keep up with normal eating. Those are all extremely stressful. that's a high demand on that patient. And so my feeling is in that first year and sometimes longer, they continue to need support from family, friends, spouses, whoever is their support system. And that's a lot of the work I do is helping people, I ask them if they're coming back from a treatment center, let's find your support people, who's going to support you, who's going to help you. And you have to be just as mindful even though they're medically perhaps out of the woods there in a very tenuous state.

**Shweta:** Right. Thanks for your answers. I guess we have exceeded the time scheduled for this talk now, so we need to wind up. I know this is a complicated topic and as you all discussed it is a multifactorial issue and one hour is definitely not enough to cover all the points. So thank you for your answers. And Dr Guarda, Dr Gaudiani, Therese, thank you so much for being here with us today and sharing such a great deal of information. Laura and Tabitha thank you so much for accepting my invitation to join the panel and your insightful questions guided this talk in the right directions. Audience, I thank you for your overwhelming response and your questions. We had a great deal of questions and we hope that we covered them all. We touched based on maximum of the topics that were posted. So we look forward to having you all join us for our upcoming talks and we'd love to hear your feedback on our talks and the topics that you think should be covered. Please email me at [shweta@trialx.com](mailto:shweta@trialx.com). And for more information on the upcoming talks, please visit [www.curetalks.com](http://www.curetalks.com). Until next time, bye bye and have a great week ahead.

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