Welcome everyone to today's weather in are the food and Wood Connection we're going to dive into how nutrition can be a component for keeping your mind strong and really looking at the relationship how our moon affects our food choices but also how are mood and the opposite how are food can actually affect are so kind of a double component here for those of you who don't know me my name is Chris. I'm a registered dietitian with Pacific Medical Center team called the living here so this is a program that offers Wellness Base education program killer to whatever your organization means I also do clinical counseling with pacmed at the end of the eastern or western side of I-5 so I go to Lynnwood Northgate Beacon Hill in Federal Way so how many of you after a long day of work feel like this lady turning to comfort Foods is a very common response to stress or any type of mood changes and a lot of us gravitate towards these type of foods because they temporarily make us feel better again there's a lot of emotion and a lot of underlying things that couldn't be to this so our first question which I want right now is what percentage of individuals eat during a. Of stress there's a couple percentages that you can choose from here we'll talk about why this is in a few slides around that dopamine response that we might be getting from and then in addition to turning to food for Comfort we're also finding more and more that's the food we choose to eat has a direct impact on our mood especially around depression and anxiety I'm going to give you like three more seconds to finish that pulling questions thanks for participating that also the result looks like mustard new Chelsea with a close second of D and that would be my original thought but actually it's 38% so this is from the American Psychological Association and it was done in a survey form so again a lot of you might be able to relate to that but it really shows that about one-third of us will eat to cope with a lot of other people will not eat to cope with stress so there is this opposite spectrum that we want to consider as well so why do we care nearly one-in-five adults about 46 million people in the United States live with some kind of mental illness this is defined as a health condition that changes a person's thinking feelings and behavior and causes distress in difficulty and functioning there are many many different conditions and we're not going to go over any of those specifically today but know that they can be categorized as mild to moderate to severe and a lot of our food intervention or focus more on those moderate to mild Disorder medication certainly can play a role in that but we're finding that there's still a lot of folks that are left with these mental health disorder even after some pharmacotherapy and cycle in Psychology treat so we really have been in the last 10 years having this big push towards more research on the area of nutrition and mental health to really see that lifestyle factors we're choosing nutrition and exercise and do really impact power experiencing the world your system statistic that we have the depression is one of the leading causes of disability in our country suicide as a second leading cause of death among 15 to 29 year old and people with severe mental health conditions die prematurely so we should care right and especially a lot of you may personally have experience with it or family members or friends that have been dealing with this so very complex topic but again what kind of Breeze the surface and ask any questions I'll make sure we get some resources and since it is an early signs they just want to say that there are plenty of research studies out there but a lot of them are inconclusive so we can't say for sure if one or two foods are affecting mood and vice versa so what time to use the chat bar a little bit I encourage participation today if your on the program lies what causes mood changes what do you think impact someone's kind of mood and you can definitely eat lunch while watching this I had a question earlier what causes severe mood changes Missy stressed health concerns whether that's a big one yet deadline hormone boredom finances diet seasonal changes other people relationships unexpected changes in life sugar allergy help external event Neighbors things that might not be in your control right the hormone changes you guys are awesome is there usually it is a combination of factors that will change her mood and specially push someone into more of a healthy mindset into a chronic disease state so if you have a mood disorder related to another health condition so I saw some of you put insulin and that could be related to diabetes again feeling pain or struggling with a disease can really change outlook on life in balance of brain chemicals that's what a lot of medications out there are trying to do is balance those feel-good hormones to make us feel happier and being more adaptable to the changes in our life license so you could be totally fine and then have a major life event that could put you more predisposed to order and then genetics and family history so people that have family members that has a mood disorder are more likely to also experience that as well so it is important to kind of check in with your family what might be already there and anyone can have a mood disorder so it's not with a specific population but people that have again a family history a life event or high stress and women are actually twice as likely as men to have a mood disorder so interesting that could be hormone-related it could be just kind of getting care and being counted with that mood disorder but that is definitely in a lot of research studies now do bracelets go over how are mood guys are from the choices so from the research we know that those with depression are more likely to consume of poor quality diet than those without the depression can increase or decrease appetite like we saw at the beginning and negative mood states have been shown to stimulate a preference for foods that are higher in Sugar fat and or salt so all of those things that were craving right when We crave food it's not usually the healthy fruits and vegetables it's more of the fatty salty and sugary Foods in addition with depression and anxiety in a lot of mood disorders received the Teagan apathy is very common and this is associated with impeding our motivation for healthy choices so being able to cook being able to grocery shop on have the ability to choose our fruits and vegetables over some of the other things are all affected when we're dealing with and then one of the biggest biological influences is that when we eat when we're sad lonely or depressed or stress we want these feel good hormones to blood on brain in the main one causing these kind of feelings of Happiness when we eat is dopamine so if you've heard of that we can just pretend to raise their hand dopamine is a way that we can start to feel good so it's spikes in the brain when we even smell some of these food and it will continue that motivation until we've eaten it when we've tasted the food once were more likely to have a dopamine Spike if it was delicious later on if we think about that food or we see that again so it's a very biological method and the reason is it's a driving us to eat so we need to have this motivation to eat or we all might start bright evolutionary why they want to constantly be hunting and Gathering because of this motivation to eat so we can have that is just one aspect of why some of these rude that we're feeling can affect our food choices based on that drive to get these feel good hormones flooding the brain also how are mood can guide our food choices is that research shows that sleeping less than 6 hours per night has a higher chance of eating more than next day so I always tell my patients that are in for weight loss if we are not sleeping and managing our stress it's really hard to lose weight because there is this chemistry that's making us feel more hungry than next day basically cuz we're tired and we're more driven to eat that food less likely to even exercise as well questions on that one question is what differentiates mood disorders from mood changes orders are actually diagnosed you would go to a doctor and they would do a phq-9 which is a depression scale they also have some other kind of methods to diagnose you with certain mood disorder mood changes which would be kind of exemplified as I'm feeling very happy all the sudden something horrible happens I'm not feeling very good so it wouldn't be diagnosed thing thanks for that clarification hopefully without Judgment of how these things are making us feel there might be even a difference and you're craving so depending on the mood that you're in so if you're in kind of a happier mood maybe you don't have as many Cravings or you're craving some of these nicer healthier food and then when you're sad or lonely or the weather is pretty crummy you're craving some of these foods that are sugar free fatty acids healthy so what is that relationship with the peace and I come back to this a lot when working with clients on pretty much any disorder right cuz we want that relationship to to be pleasurable and not always filled with shame guilt and that can spiral specially for having binge eating episode or some kind of disordered eating pattern I'm the last one on your screen is noticing meal patterns I find that when people are eating at more random interval they have more susceptibility to mood swings so move those mood changes not diagnosed but this changes in for chelation does moved so have you ever heard of being hangry that's that kind of feeling so hungry that you're impatient you can't really think clearly about anything except for food some people may experience frustration or anger because of that I know I do so I like to make sure I'm not driving when I'm in that hangry State because you can find that you're more frustrated and just more agitated so eating a more consistent way and that doesn't mean you have to be every 3 hours or two hours like we used to say I could just be just having a consistent in taste and not saving all of your calories for the end of the day so like we saw at the beginning some people do eat went to cope with stress but also a lot of people don't eat when they're stressed so I find that when you're stressed all day at work you're trouble eating and then all of the calories are at night and not can be also kind of affecting how you're feeling you might be overly full you might be consuming more of those sugar-sweetened things that make us kind of more susceptible to mood changes yeah so when questioned about sleep if we don't sleep enough our body tends to come and stay by eating more yep that's exactly what's happening there's actually some fluctuations in our appetite hormone and a full this hormone when were really sleepy so we increase our hunger hormone and we decrease the fullness hormone so that were just driven to eat more and they research that people eat about three hundred more calories a day when they're sleeping less than 6 hours and that's on average so of course that's different for everyone but that could be enough to put on some pounds over the course of a month great questions so far All rights the next can your food choices guide our mood so spend the rest of the time talking about some of the research around how food is affecting those feel-good hormone and all of the chemistry that's going on in the brain we know that the determinants of mental health are really complex that I said multiple times but there is some really good evidence now suggests thing. Diet is as important to psychology as it is the heart health and gut health and all of the things that work kind of trained to think of nutrition for there's a new term called nutrition psychology that is a relatively new field so they just started using this term about 10 years ago and they're looking again at that link between overall diet quality and depression and anxiety those are the same two things and then there's also some around some of the more severe or moderate mental health disorders the lips explore some of their research but first another pulling question for you and this time about anxiety I'm pulling it up so what foods are most likely to decrease anxiety opening that pole you can choose from dark chocolate milk chocolate pizza mac and cheese all of our comfort food 3/4 many of us anyway give me a minute to you you know that and yes I hope you're eating during this because I always get hungry when I see delicious pictures of food I don't think I checked many of you on this one I'll give you three more seconds again read the winner is definitely a dark chocolate on them playing the results you can see and that is correct so there is some good research that dark chocolate specifically the cacao in dark chocolate so not the sugar but the actual chocolate component has a positive effect on stress levels inflammation mood memory and Immunity which is pretty well so I put an article at the bottom of your screen you will get a copy of these lies and I didn't email form after the presentation so feel free to peruse that if you're interesting so let's go over some primary findings today around General eating preferences we know again that food alone is not enough to fight mental health disorders but it could be a key component to it but let's dive in and I started with some general recommendation because we know now there are these research studies are moving away from one specific nutrient to looking at eating patterns so I'm sure some of you have heard of the Mediterranean diet on this one's probably been studied the most or mental health because again there's a lot of people that are consumed in the Mediterranean diet in the Mediterranean region and now in the United States to let's see so they're now looking at this because of that more comprehensive approach to just general help so for example there was a review by the international Society for nutrition psychology research and it says a whole food diet consisting in higher intakes of vegetables fruit Seafood whole grains we need not Lagoon the avoidance of most processed food are more likely to provide the nutrients that afford resiliency against mental health disorders so all of those things I just listed are on the Mediterranean diet pyramid they consume a lot of plant food whole grains with fiber rich grain we see loads of fruits and vegetables on their plate they also consume a lot of olive oil which is a healthy fat that's also included in that plant based out of warranty they eat some meat as well but a lot of it comes from the seed sower you can include kind of chicken in that category as well as some poultry further up those pyramid is more of the fatty or meat products so she's has the kind of red meats are more at the top of the pyramid with Suites there and they do eat some dairy products but it's just a lot less than some of our typical American diet you also notice that the bottom there is exercise and we'll definitely get to talk about exercise today but know that that's part of that Mediterranean diet as well so many Studies have compared to traditional diets like the Mediterranean diet and they also look at the traditional Japanese diet to a western diet so what we're kind of consuming in America so to speak and they're shown that the risk of depression is 25 to 34 5% lower in those that eat the traditional diet soda scientist account for this difference because traditional diets are tend to be higher and vegetables fruits unprocessed grains to have more fiber in the diet fish and seafood will look at Omega threes in those components today and I'm again less refined they also noticed that a lot of traditional diets include a fermented food item so for example yogurt kimchi sauerkraut on some of these things that have probiotics will also look at that as why diet can affect our mood so I would love to hear some meals are components of the Mediterranean diet that you guys are already doing the things back to your breakfast or lunch or dinner the last night and see if you have any components of the Mediterranean diet in your study you can put those in the chat borrow read them out there what's interesting is that Mediterranean diet is also looked at for better cognitive function in general so it's been really studying for the prevention of dementia and Alzheimer's and we can kind of relate that to disorders as well you guys are eating some tuna and some not whole grains vegetables broccolini oatmeal real leave whole grains and nuts peanut has said they have been eating a lot less processed food in their heart palpitations have one way that's awesome the right thanks for the insight the two areas of research that on Mental Health disorder specifically that I want to briefly cover today is the gut-brain axis and probiotics as well as omega-3 fatty acid is probably have the biggest area of research that I could find as opposed to just eating fruits and vegetables so I wanted to take a minute to go over those so the effect of probiotics on human health especially inside inside psychiatric disorders have recently emerged as an area of interest in Neuroscience so a lot of people are gravitating towards the connection between our stomachs and our brain they've coined it the gut-brain axis because it describes a two-way communication between the brain and the digestive process so this connection is more clear when we can always be aware of how are GI pain or distress and be linked to our mood so have you ever felt that your stomach was tied up in knots were you have that feeling a lot of our thoughts can be kind of manifested or vice versa in the gut so I've got told about 95% of all of our serotonin and that has to get transmitted up to the brain in order to be used as one of our happy hormone so we know that there is this great connection between the trillions of bacteria and how it gets to our brain and vice versa does temporal Studies have shown that when people take probiotics either something usually supplement in these research studies to be more consistent they found that their anxiety levels perception of stress and mental Outlook had and crew compared to people that didn't take those probiotics they also again looked at that Mediterranean diet and researchers are looking at the fact that many of their foods are fermented acting as natural probiotics to the guts of these are good bacteria that were consuming that aren't necessarily causing harm to the body there in this nice symbiosis in there helping with our immune systems helping with our digestive process and in turn they get fed all of our food which is great these are just some points on here there's a 2016 systemic review which means looking back at a large number of studies that support the potential role for probiotics and reducing the risk for depression although again like I mentioned further Evidence is needed and larger studies are are encouraged so what do we do many researchers are still recommending to fix food first so not going towards supplements as your main reason for storing your mental health disease or trying to alleviate some of your depression and anxiety so food first means including what's the fiber rich sources in the diet whenever we're eating anything fiber we can't honestly digest it on her own we need the bacteria to help us break that down and fiber we think of is only that foul regulations but actually it's supporting our immune function it's eating all of the bacteria that we want to stick around in our gut and not can have a really sound effect on how our brain is functioning as well do we need about 25 grams of fiber a day for healthy bowel function I'm up to about 40 G depending on your body size so whenever I think about fruits and vegetables and whole grains it's mostly the fiber that I'm thinking of of course there's some vitamins and minerals that are extremely important or when it comes to that the research around brain disorders that fire is going to be so Cal they have that article down here around probiotics may help Bruce boost mood and cognitive function from Harvard and that one is a really nice article if you want more information on this the second area is are omega-3 fatty acids we we hear about these a lot I think is kind of heart health and inflammation who is Ian there omega-3 fatty acids recently so those are fats found specifically in certain seafood and they'll be a nice car on the next page if you're like who I don't really know if I've eaten by a mega threes today again research has shown that depressed patients appear to have lower omega-3 fattest a status which naturally led to this investigation does it have something to do with how they're feeling so when we see a deficiency of dietary deficiency of Omega-3 than humans receive a whole host of other risk for them as well so severe mental health disorders include attention deficit disorder that flexia dementia depression bipolar disorder schizophrenia and we know that this could be playing a role in it it's been studying greatly for dementia and Alzheimer's and there's some really good positive outcome when people are replenishing the sufficiency of a mega threes and their mood doesn't reverse the condition but it can stall and not have it progressed so rapidly omega-3 fatty acids are made up of they help kind of creepy or cell membrane and we know that there are essential for brain functioning so we we see that they also lower total inflammation in the body and help kind of deregulate that effect Studies have also shown that can help facilitate especially when preventing cognitive decline disorders like dementia as I mentioned there's two kinds you might have heard before they are DHA and EPA EPA has shown to act as an antidepressant agent by causing beneficial structural brain changes where is the DHA has been more effective as early intervention so what they look at on pregnancy and early development of the fetus when they have adequate DHA has been shown to decrease depression adult life so there are now recommending DHA for people that are pregnant so that they can get those omega-3 fatty acids in there there's not as much studies about DHA for on July 11th although always come kind of paired together so DHA and EPA are rarely separated in food and then also supplement sometimes can manufacture how much is it in what but typically you will get both of them I'm intake of supplementation of fish oil has shown to protecting you even so 15 or 25 years from major depressive disorder so we tend to accumulate omega-3 in our body the most when we're a growing teenager up to about age 21 and then from there we're kind of left it with what we have so it is important for our youngsters to get some of these Omega or their brain health so there was some studies about supplementation cuz I know we always can't eat are Mega 3 fatty acids with different fish sources and the cost excetera so they did look at supplementation and they only saw a small to moderate benefit of the effects of supplemental omega-3 on depression so again still lots of research needed in this area but we can say that there was a small benefit and we see that it could be on a more individual basis so people that do have that deficiency could benefit more from supplementation or just an increase in eating are Mega 3 fatty acids then than others additionally along with omega-3 fatty acids a lot of these fish sources have vitamin C in them as well and we found it when looking at Vitamin D supplementation this did help to improve mood for in study populations and also reduce depression symptoms pacifically an obese people so it's something to that remember that we do want to supplement with vitamin D here in the Northwest specially if were in Washington but again it's good to get your levels checked every year to make sure that we're not low in them we get most of our vitamin D from the Sun but there's very little food sources do during the winter we tend to be depleted and that is also related to seasonal affective disorder also known as sad so that wintertime flu so here's that chart what are the different amounts of omega-3 fatty acids in fish so what do we think we try to consume these fast at least twice a week that's the current recommended intake there are against sources here and you'll see that the fatty fish like salmon and sardines are going to be more prevalent so I'm going to put our last pulling question up here and this one looks at what kinds of what is your favorite omega-3 rich food and I put salmon sardines tuna maybe you're a vegetarian so you like the flax seeds and she is maybe you just prefer a supplement InStep laments we want to just make sure we're getting it from a healthy source so look that your supplement company is third-party tested or has rigorous testing on their own to make sure that there's no work here by products in that so that product is safe there is not as much regulation around supplements in this country so we'd have to kind of do our due diligence and research them on and fortunately they're not all created equal I was hoping sardines would win but it looks like salmon is our winner with a close second tuna tuna does have sound but again not as many as maybe we like since we do eat that won the most out of all the seafood alright so we see that salmon was the most popular tuna II we had supplements third flax and chia seed so I'll show those results for you thanks for participating there alright lastly we wanted to touch on exercise because again this could be a huge component between the relationship between mental health and our feeling so physical activity has been shown to a multiple psychological benefits especially on depression the weather is walking or swimming dancing inside or some kind of activity exercise prescription we're now calling it is a vital component to your mood boosting care and I find that a lot of psychologists are actually just making sure people are moving because even when we feel horrible if we do a little bit of movement that can stop searching through some of these natural feel good hormones on her own so some of the benefits that we see here on your screen and just put the captions on by accident sorry about that so we see an increase in blood circulation increase level of neural protective factors and growth of new to this can again be supportive of lowering our risk for dementia improve our physical health so improved again circulation and transfer up all these things that we are eating helps to lower our blood pressure and release some of the stress that we feel on a daily basis we also see Improvement in focus and concentration and when they've done studies specifically on people that have cognitive decline they find that there's an improvement and function behavioral disturbances and psychological conditions Associated so it would be a lot of people have like depression is associated with their dementia Etc and it can be really helpful for us we also know that exercise can start on biological Cascade of events so it's protecting us against heart disease and diabetes improve their sleep helps to lower blood pressure like I mentioned and then also increases some the feel-good chemicals or and we call them endorphin resulting in that runner's high or that feel good moment so a lot of people really utilize and exercise as part of their Stress Management routine and part of their Mental Health and I know it's sometimes hard to get into that habit but again more consistent exercise will continuously kind of reinforce the benefits for mental health don't know much do exercise to get some of the benefits we're finding that even about 10 minutes or so of moderate-intensity exercise can start this to have some of the facts we just saw on our brain so I know it says 150 minutes and I can feel really overwhelming but it's spread out over the course of a week and again that 10-minute Mark seems to be the Magic Window of how much you can do at one time and still get some of the really good benefits so if you only have 10 minutes for lunch take a break take a nice deep stretch to run around and do something that can kind of break up that sitting moderate exercise means typically that you're able to talk still but not sting and then vigorous would be really difficult singing or a sorry talking and breathing more heavily activity you can get away with a little bit less or you get more the benefits a little quicker when interesting thing is that we saw a study that sells a 26% decrease in the odds of becoming depressed depressed with each major increase in physical activity so they looked at people that just swapped 15 minutes of sitting with 15 minutes of exercise and they saw that effect on the brain so 25% decrease is about what a medication could you so it's amazing that exercise is this magic pill that we often forget about and lots of resources at the bottom of the slide if you have more curiosity around certain things so we have some time for questions and you can put those in the question answer tab or the chat bar and I'll just get a few in here are you can always email me from the email below Oregon you'll get a follow-up email after watching this live with the slides and additional resources the when there be a big difference in farm salmon or is that Atlantic kind vs Wild we do see a pretty good different I'll have to look at specifics on that but I can get numbers for you physically the Farms are eating more synthetic type foods like rains and things that might not just necessarily be in the wild so if you find that the wild has a little bit higher intake I don't know if it's enough to warrant only buying Wild vs Atlantic but I'll look that up for you yes the craving so how do we stop the cycle of sugar and salt craving so I crave sugar after salt for example so again we know that dopamine is spiking and every time we experienced sugar salt on certain types of protein in their fat all these things that aren't so good for us so when it ology for that time I can attach a handout in your follow-up side is just kind of distracting yourself they call it that's the five days and there's a couple of different ways that we can do it but what does distracting The Waiting determining how strong they are trying to find something else that might satisfy that craving that is a little healthier so if you're craving salt maybe you can sell your vegetable or something that can be crunchy that you can be a little bit earlier so I'll add that to the follow-up email but it is a difficult one because we all have different too raw to certain foods depending on how we Associated that previously in our life Tim salmon is great so again we find that there's actually more calcium in canned salmon because they cook Down the Bones that you can so that you can eat them and can salmon so that when you would still have an abundance of omega-3 fatty acids and is a little cheaper so what do you know of an Eevee app that would help track your mood on haven't heard of many that do that most mostly it's like intertwined in some of the Weight Watcher kite type app on mindfulness and let me look around there is one website called the food nutrition kind of blinking on it and gets food and nutrition. Org and they have some apps that they review related to food and mood and exercise so that would be my recommendation for that but I'll look around 2 and see if I can find anything do kombucha does have probiotics in it and there are some benefits to drinking kombucha especially if you're not able to eat yogurt or some of the other sources of probiotics what we do find out is that we don't need a whole bottle to really get some of the benefits there's about enough probiotics in about one shot or a couple shots of Kombucha so if you want to extend I know it can be expensive but if you want to extend that bottle and just have like a shot with your sparkling water or with your water a day that could be your source of probiotics and yes there are some concerns about pollution in our Seafood consumption most mostly there are certain fish that has higher Mercury than others I like to go to seafoodwatch.org there a great organization that looks at the sustainability of our food or of our fish supply that I would kind of point you in that direction so that Seafood watch. Org they have a pocket card that will tell you why sustainable fishes that have less Mercury on iron not too sure about like the pollution aspect of it but again they would probably have really good sites on that well thank you guys so much I'll stay on the line for a few more minutes if you guys have additional questions but again you can email me with questions or concerns and it's been a pleasure