Hello everybody and welcome to today's webinar nutrition for the immune system this has certainly been a crazy time with coronavirus and flu season colliding today we're going to look at ways to strengthen our immune system as an added protection and energy for our bodies if you're watching this live you'll receive an email with this PowerPoint presentation as well as a few additional resources after the webinar and if you're watching this on a recording you can feel free to email me on the email at the end of the presentation to get all of that information as well so please put your phones on mute or your computer's make sure next to your name has a little mute button so that we can minimize background noise thanks so much so let me first introduce myself my name is Christy Goff I'm a registered dietitian with the Living Well Alliance team here at pacmed this is a workplace wellness and education program that helps prevent chronic disease and flu Living Well Lions is here for companies to provide accurate information on the latest nutrition and wellness trend although I'm not an expert in Coban 19 today we're going to focus on the nutrition aspects and keep points around enhancing our immune system so I'll answer as many questions as I can around specifically, but I'm mainly here to point into resources that know a little bit more about what's going on currently in at the greater Seattle area so that being said I hope that you leave today being able to describe the basics of our immune system it's a really complicated system we're just going to go into the very basics we're going to explore two ways to protect and strengthen our immune system and then I hope you can leave with naming to nutrition practices that you can Implement today or tomorrow to help your immune system and your health and I love hearing about what you guys already are doing around nutrition to protect your immune system I find that everyone has their concrete way that they just swear by so if you want to share that in the chat bar feel free and I will kind of suggest those as we go I'll also leave a couple minutes at the end of the presentation for questions but if you have a question on a specific slide feel free to write that in the chat bar as well and I'll see those and answer those at the end so let's dive in there are three sorry there are three layers to our immunities the external which is a physical barrier this includes our skin or mucous membranes hairs and it also includes our digestive tract the digestive tract is said to account for about 70% of our immune system the second phase is adaptive defense and this is a short-term non-specific defense that is reacting to anything foreign that's coming into our body so it's not necessarily look working on a specific virus or a specific bacteria it's a very general system the third layer is our innate defense this is our more long-term defense mechanism that occurs when we start creating T cells and B cells and they get bill every time we are either sick or we have a vaccine so this is what we would get a vaccine around when we finally have one for covet 19 I love this diagram because it shows you a little bit more in detail about what things are happening at each phase so external obviously blogs the exposure or influence of bacteria or viruses coming in but the first line is those phagocytes that you might have heard about and are natural killer cells yes that is a real name it's hilarious and these are basically identifying and getting rid of anything that's considered dangerous now the second layer is that more specific layer I mentioned with when we have memory cells so they have antibodies like B cells and then T cells are also a memory cell that eliminates specific other things I'm I still like I'm saying that there might be some issues with the slides let's see might just be delayed are you guys seeing the slides at this point all right I'm going to re-share my screen and see if that helps thanks for the heads up how about all right I just reshard my screen if you yes it looks like people are seeing that and sorry about that must have just kind of paused out for a moment so this is that diagram I was just talking about with the three parts main parts of the immune system the external the first line and the second line of defense so I always get questions about will why are these things more prevalent in the winter time so February is often the peak month for illnesses like colds and flus and bacterial infections a lot of people think maybe a good morning the deeper winter but so why is this there's two main reasons in Winter people are closer together there's less ventilation a lot of times where you're living or where you're working and it's typically cold and less humid in many places which allows for better atmosphere transfer of viruses if they're droplet borne so for example the flu and the coronavirus will travel through droplets from a person's mouth or body and they can actually travel a little bit farther in a place that's cold and less human so people with the flu are most contagious the first three to four days after their illness begins now this is a little bit different with covet 19 but they seem to be pretty similar in that affect and sometimes we can be contagious even before we have symptoms so that's why it's so hard to track and that's why a lot of people are being more Vigilant about taking temperatures and really analyzing symptoms that may or may not be a flu or the coronavirus and then an interesting point to know is those people that have a more severe case of either of these things either have a weakened immune system or children they can actually pass on the disease a lot longer than that one to four days so it can come sometimes reach up to a week if there are more weakened immune system basically because your body hasn't had a chance to fight off that infection I left you guys some resources on the CDC if you haven't been there yet it's a great resource for learning anything about the coronavirus currently or just the general flu epidemic that we have every year and I say epidemic because it can affect a lot of people I think we're so used to it now and a lot of us are vaccinated against the flu it doesn't feel as daunting but there are about a thousand people in the US that die each year from the flu and over 200,000 people that are hospitalized so there's a lot of tracking around the flu and any type of virus in the CDC so now specifically The Cove in 19 this is a new virus Strand and we currently don't have a vaccine for it we know a few things about it and it seems like it changes everyday but it is droplet transferred meaning it goes through the air you can get it from close contact with someone infected and left of a risk but still a potential is touching objects or surfaces that are also affected by the virus perfectly I've personally noticed how much I start touching my face and nose and things around the office right so it's really nice to just be aware of those things and even if we're not always minimizing it giving some hand hygiene before and after touching objects or your face or your body in general generally cases now reported with a mild illness to Spivey are so it kind of depends on that person's immune system going into the virus as with any sickness right so symptoms include a high fever they say over a hundred a cough and then any type of Us / upper respiratory stuff like difficulty breathing I pointed you guys to the King County. Gov site for live updates around what to do when if you think you're exposed what to do if someone in your workplace maybe Expose and then jansey gave a great talk yesterday around why we're doing all these precautions now from the CDC and from King County to try to minimize the amount of people that are infected each day or each week so please go to their sites for some of the information on travel and specifically what we're doing here in Seattle trying to open the so I love this little chart because it really differentiates the cold and the flu they're both viruses but there are different type of virus so cold we think of as a little bit less severe and you can see that there are different symptom onset fever those symptoms you might get with a fever like aches and chills and fatigue and then the more kind of sneezing and runny nose sore throat is really common in the cold and may or may not occur in influenza and now we're seeing that with covid 19 as well so this is a great one to just keep it is from the CDC they have great handouts if you ever wanted to print something out for you or your family or your work I would recommend going there first so we won't spend much time on her flu vaccines why this year because we're so worried about covet 19 but it is still important to get vaccinations that are available to us and specifically the flu vaccine because it changes every year so the whole world it has some input around what's trans they're going to use in the vaccination each year and they usually pick the three to four most common strands and they put it into the vaccine in a non-living manner so you're not actually getting the live virus trans so most people do not feel they don't get the flu from the flu vaccine they could get small amounts of symptoms as your body is building those antibodies but we would not consider that like the true Slim what I didn't realize is that immunity doesn't develop until 2 weeks after you get your flu shot so it's interesting that some people might get flu type symptoms or feel like they have the flu right after the flu vaccine and that could be true that they have gotten the actual flu before they've developed immunity in the body so just to know be safe in that 2 weeks after you get your flu vaccine so again more information at the CDC and what I really wanted to stress is that vaccines will decrease severity and the length of time you're sick so we're finding some correlation between again some whatever protection from the flu vaccine on a lot of different viruses out there so obviously you might still get symptoms but hopefully it's going to be a lot less severe and for a short amount of time the average time for flu is about 10 days so if you can decrease that by half or even up 3/4 that would be amazing right you don't like being sick hopefully most of you and there is a couple different vaccines depending on your age so just talk with your pharmacist or doctor about those types of vaccines so now some information on improving your immune system as promised and also with nutrition there's no Surefire way to not get sick right what we can do is strengthen our immune response and strengthen our body so that when we do get sick the amount of time being sick is lessened so you might notice this with your own bodies if you had a. Of time where you got sick a lot maybe you weren't doing much different besides eating differently or maybe exercising differently and it is amazing how much it can help improve the time that your second how much symptoms that you do have so first we have to go over a couple other factors besides nutrition for prevention of viruses and bacteria and all those things and if you haven't seen the Korean sorry Vietnamese kind of public promotion video yet I left that link on you for your viewing pleasure after the webinar today but it's just about washing her hands and doing some of these ounces of prevention so you've probably heard by now that hand washing is really important for minimizing that outbreak and for your own protection with soap and water for about 20 seconds so this works on two fronts the first thing that's happening is that you're physically removing things from your hand at the same time the soap will actually start breaking open the bacteria and virus from the inside so it doesn't have to be an antibacterial soap to do that but the action of sky sing in the soap itself is actually killing some of that bacteria and viruses on your hands they have found that temperature of the water is not a factor of Effectiveness so you can wash your hands at any temperature people miss a lot of spots on usually the back of the hands and the lower pain so make sure you spend some extra time doing the entire hand in between the fingers the nail that area and if you have access to those great UV lights that kind of test your bacteria on the hands before and after hand-washing they can be a really powerful way kill start washing your hands more appropriately One 2013 study found that only about 5% of people wash their hands for more than 15 seconds so a lot of people just do the Splash and Dash where they're putting her hands on her water for a second others you so but maybe are just washing it off right away without the rubbing action so consider your own hand hygiene and if this is just a good reminder for us for every winter but especially now to sing that Happy Birthday song all the way through we talked about getting back to vaccinated and then we're going to talk a lot about eating well other things that we know are helpful for your immune system is staying active so I know a lot of Community classes and fitness classes are canceling or moving online so just find ways to still move your body because we know that that does strengthen your immune system and also combat some depression that people might be feeling if they are quarantine or not able to socialize and do a lot of the things that they might have planned this month we'll talk slightly about sleep and how important that is for your immune system and then also managing stress stop nutrition the tasty stuff on nutrition can actually Target all three major defenses of your body from that beginning side unfortunately we still don't know a ton about the connection between certain vitamins and minerals and our immunity because everyone is very different and how their immune system is working with their nutrition and their stress and they're sleeping all of these other phone so there's some get the series and that's kind of what I'm going to dive in and promote them as and all of these things are really good for just General Health the reducing heart disease Greenhouse all of these recommendations so I don't feel like I'm lying to you right it's still going to provide some healthy and we find it healthier bodies mean healthier immune system so let's look at some of the ones up here the first and foremost is choosing more vegetables and fruits so our immune system functions most effectively when we have adequate levels of nutrients that are present in the body and vice versa when we're lacking nutrients are becoming deficient in certain nutrients are immunity can become suppressed leaving our body more vulnerable to and actions around us so we need to continue eating more of these putting them into every meal acknowledging when you do have a meal that doesn't have any fruits or vegetables and seeing where you can add that in for a later snack or beefing up the amount in that next we want to specifically emphasize dark leafy greens because of how much nutrients they contain and such a little quantity right so your kale and your spinach and all those good things some of the vitamins and minerals we get from our fruits and vegetables are vitamin A and vitamin C and then we get some minerals from a lot of other Foods including our food vegetables like iron copper zinc and selenium so we'll look at those in a little more detail later about what their specific the next suggestion is to eat a little bit more Seafood so our immune-boosting selves will are somewhat related to how much inflammation our body is dealing with this is cause stomach inflammation and our body can be more on alert if we have less going on in the body for example so it's important to add some of these lowering inflammation foods like fruits and vegetables but also we find that eating more a mega threes that are specifically in certain types of seafood can help start to activate that anti inflammatory response does it helpful with symptoms and things that our body are doing to fight the infection Seafood we also get a source of vitamin D which is pretty rare in our food and this helps to activate our immune cells that are needed to seek out and then destroy infection so there is a quite a big link now between vitamin D and our immune system and not just Arbonne house that you might have heard about before so the important thing to know is that you don't have to go crazy with vitamin D but we want to make sure your body has adequate levels since a lot of people this time of year are at their lowest amount of vitamin D that they'll have because we get it mostly from the Sun so you might have noticed this year we haven't had much fun this winter and even if we did have someone that we are not able to absorb the same type of rays from the Sun during the winter months as we do in the summer actually make vitamin D in the body you can get some vitamin D foods and like fortified milk products are fortified grains or things like that and then I'll settle some mushrooms will have a little bit of vitamin D but otherwise I recommend supplementing for that one which will look out next is limiting sugar added sugars not your fruits limiting alcohol and smoking so all of these can deplete your body and raise inflammatory response in the body so it's almost like distracting her body from fighting off infections when you're dealing with detoxing from some of the sugar alcohol and smoke damage so I know this is a really hard one when we're all really stressed out right now to avoid sugar and alcohol it's usually a comfort food for a lot of us so it's worth just acknowledging how your habits and especially around sugar have changed since the onset of this outbreak so anxiety a lot of people rushed towards sugar and alcohol because it makes them feel good in the moment but it's actually depleting our immune system so notice your Tendencies hopefully without some judgment associated with that and see where you can put in place some just small tablet changes that helps to reduce those three things next on the list we have ADD fermented foods and probe for probiotics so there's some evidence that eating probiotics from fermented foods a system immune function and this is mainly due to our immune Warriors reside in our digestive tract like I mentioned about 70% are in that digestive tract that external first offense there are I'm waiting and waiting for if there's going to be more research on certain strains of probiotics that really kind of take over your immune system and help with that but for now we know that ever variety is the best bet so examples of foods that have probiotics in them are your yogurt your cultured dairy products so there's some cottage cheese and sour cream now that have probiotics in them Kefir is a non-dairy coconut water that has probiotics kombucha the fermented tea kimchi and sauerkraut are fermented cabbage or vegetables and then you can even get some probiotics probiotics and certain raw pickles so things that are in the refrigerator section not which there are canned capsules are supplements are fine too but we want to make sure you're purchasing one that has a number of different strands in it they say about 6 or more so that you can get a good variety because in all of those foods are getting different types of bacteria the good kind not the bad don't worry and then lastly add some things so we know a lot that about herbs and spices that help ramp up your immune function so things like ginger garlic onions oregano time are all thought to be either antibacterial or antiviral in small doses so specifically Ginger is considered anti-inflammatory spice it's also an anti nausea remedy so it can kind of go to ways it also may contain antiviral properties that can create a negative environment for viruses to multiply and I mean hopefully you like ginger so maybe just add some ginger onto your Foods or if you're doing a kimchi that comes with garlic and ginger in abundance so that's a really good food I've been loading up on this week garlic is another interesting one because it contains an active molecule called Alison and this helps off fight off infections and bacterial so I know a lot of people did the raw garlic I don't recommend a pretty horrible but if you cook garlic chop up your garlic wait about 5 to 10 minutes and then throw it in the end this pan to heat so this will preserve that active molecule which we want to do so just five or 10 minutes to sit and I guess activate that molecule and then cooking doesn't seem to destroy which is great time is also a great herb for drying out the mucous membranes so a lot of time our body will / activate are mucous membranes during sickness and this can also have a time can actually help dry out so maybe not as severe as sudafed right it's just an herb but you can add that into your food and your eggs and feel like maybe you're helping out with that mucous membrane so some inspiration for you I always like to show the Choose My Plate diagram because this is a great way to just start building your foods and making sure that you have a good variety around each meal and snack so for example you can throw in some extra stamina this week for those omega-3 fatty acids you can sprinkle nuts and seeds on your oatmeal or smoothies or even on your pancakes so things like flaxseed chia seeds and hemp seeds are a source of omega-3 fatty acids you can also make a delicious soup or muzo soup specifically has miso paste which is probiotic if we're not totally boiling it to death so add that last in your soup or your salad dressing and then some condiments there is yogurt there such sauerkraut again and then I've been doing just a big salad for at least once a day so you can get a mold multitude of vegetables and some nuts and some fruit maybe even on that so just some inspiration for you there so what about supplements so the research can be sparse on certain supplements it's harder to test and there is a few reminders to know about when looking up supplements get your information on the actual brand of your supplement this could be calling the company researching it online to see if they have a third party that helps to regulate what is actually in that supplement so they're not regulated by the FDA like our food is so it's nice to know there is a regulation called a third-party there's usually a little sticker on the Apple meant to know that they're not just doing their own testing and that's it someone else is coming in to just verify that they're getting what you actually want natural supplements don't necessarily mean say another buzzword that's not really regulated and then there are some interactions between supplements and herbs that are possible so if you are on any medication you can check up in with your provider about certain supplements especially that herb category because these can act like a medication or how they're processed in the liver is similar to how another medication could be processed so let's get to some supplements and let me know if you guys have any specific questions about any of these ones as we go through so Elderberry is one of those lesser-known supplement out there and there's an active component in it called sambucus and this is it's from a berry as you can see on the screen it's long been used for antiviral and immune modulating effects and also and high antioxidant fruit so this one does not grow in our country but you can still buy it in the form of a tincture they put it in those little cough drop type things now there's different candies that have Elderberry in it so just look that has the sambucus in it so it's been tested against 13 different strands of influenza that's the flu vac virus and tested positive for killing me strand so that's a pretty cool thing for this one I find has the most research on it to tackle and viruses specific I'm dosing is usually you have to do a lot or sorry a little bit throughout the day if for prevention and then if you're in the actual acute illness it's worth taking a little bit more each hour so this would be again doing like a droplet from your tincture or again those lozenger that come with zinc in that sort of thing you could keep doing those throughout the day some of them do have a lot of sugar added to them so just know that when you're looking for a different brands and I have a handout on Elderberry to make your own if you're interested in them zinc is our next one on the list this think is needed to activate are T cells and a marginal zinc deficiency can seem can be seen to diminish activity of other important immune cells such as our first line of defense those macrophages natural killer cells Etc supplementation of zinc has been shown to be effective at reducing a number of colds per year so this is again War for the cold virus and not so much research on the flu virus it's nice to know that supplementation is really called for when you feel an onset of symptoms so it's not necessarily used as a prevent but you can take it about 24 hours after you feel the first sign of symptoms to help reduce the duration of that cold small low doses periodically throughout the sickness is best against our body can only absorb so much and high doses might actually tastes very metallic and cause some stomach upset so it's not necessarily dangerous to do short term high-dose supplementation of zinc we just usually recommend doses around 5 to 10 mg and that could be as much as your daily multivitamin so check that label there because high doses over a long. Of time will actually create a copper deficiency in the body the Nexus vitamin C might have heard this one around this is usually a common remedy for sickness there's a lot of product out there that have vitamin D what we know is that it's works best for prevention and not really once you're sick so vitamin C is prevalent in a lot of our fruits and vegetables as you can tell up there we often think of a citrus having a lot of vitamin C but red bell peppers actually have a lot higher amount about 200 mg kiwis are also really high so we can get a lot of different vitamin D sources from our food so that's the best way to get your vitamin C and then if you were to supplement just think about how much you're doing so 500 mg seems to be the maximum our body can absorb at one time the rest get speed out so we don't see that hundred or thousand or 2,000 mg that you might get from a supplement a lot of that is just stuff you can break up the supplement half or just do small amounts of the powder at a time that seems to work best for just ramping up that immune system we are at Vitamin D again so we talked a little bit about this but just want some more information around how higher level should be so if you've ever gotten vitamin D tested at the doctor you want your levels over about 40 this is different from the amount that you're supplementing with so if you follow up with your eyes down to the bottom of the screen to stay at whatever level you're at the say you had a 40 level and you are taking a thousand I use a day your body will probably stay at that for you which is good if you are out of 10 level your doctor may be prescribing you a 10,000 IU vitamin D pill because you need to get those levels up right so kind of depends where you're at but a safe bet to start supplementing with is that 1/2 mm there's supplements in pill form there's liquid and then you can also get vitamin D like powder supplements that combined with vitamin C lots of options for getting your vitamin D in What vitamin D is being really studied for is reduction in respiratory infections and because Cove in 19 has a respiratory part of it this is really important to Just note so I hope you guys all go out and get some vitamin D supplement and really start doing that diligently throughout the winter months all right we're going to Breeze through the rest cuz I know or at time on so if you have any questions about the nutrition aspect please put them in the chat bar and then when I finalize the slides all open it up if you wanted to ask with your voice so exercise we know helps relieve anxiety and stress which contributes to your immune system Health it slightly elevate your core body temperature and I found that this is more effective at eating off some bacteria that come into your body and not necessarily viruses depending on which buyers it is and then it improved your sleep which we know helps to restore and a lot of our immune system works while we sleep which is a little convenient right I'm to sleep how much do we need if you can get at least 7 hours that's usually the best bet for fighting off infections and also the quality of that sleep not only how many hours you're sleeping is important to so I know it's a lot of people right now if they're coughing and sneezing that could be affecting the quality of their sleep so finding ways that you can minimize symptoms or minimize their Partners noise while they're sleeping can be something to just know when we're thinking about our immune system house and then stress that could be a whole Topic in itself but I know we all feel a lot more anxiety and maybe sadness from things canceling so it's important to do some self care during this time of year we know that stress releases cortisol which puts us into a fight or flight mode and if we're in this mode for a long time that can impair our body especially our immune function so while we can do all these great things for a nutrition if we're stressed and not exercising and not sleeping well that's going to almost Trump what we're doing to eat all the nutrients that were eating and supplements that we're doing so note that is a complex system is not just one or the other it's about trying to just pinpoint where we might need a little bit of help in this one so again as a reminder wash your hands get vaccinated you can still get the flu vaccine now most likely I'm so that could just be something that you feel like you can do around this current eating while staying active sleep hopefully a lot and manage stress so let me get to some of your questions and of course my email is there and if you do feel like you have cover 19 please visit that King County website there's a number you can call to make sure you know the proper format so I had one just comment black elderberry Syrup can be found at Costco how amazing write a lot of Super Supplements and natural food stores also have different forms of Elderberry I've also found it at Park Health and Rite Aid in those kind of like cough pills type thing so it's definitely out there and just really look that has the sambucus and it because that is the active form that actually doing it's my favorite tasting supplement so it's not one of those gross alcoholic tasting tincture that you might have experience with I have a question around red meat so are red meat counter in town her active when you're trying to amuse boost your immune system I haven't found anything specifically on red meat and our immune system however we do know that abundance of red meat can up our inflammatory responses in the body again you could be getting a lot of saturated fat which is not great for your cholesterol levels again causing some inflammation inside the body when you're doing that the recommendation from the Cancer Society and the Heart Association now is to reduce your consumption to about 18 Oz per week of red meat so that could be still having it a couple times but maybe in smaller quantities and again it's all about balance so are you eating that red meat with french fries or are you eating that meet with a beautiful salad full of those vitamins and minerals that almost not Nestle counteract and help manage some of that inflammation and some of that excess cholesterol that you might be ingesting if there's any other questions you can again type them on the chat bar or feel free if that works for you can come off your mute button and try to ask them and we'll just pin it if there's a lot of people out looking at once