Hello everybody thanks for tuning in for the December webinar on all things that I definitely got plenty of questions about what fats to eat and what the research is really saying about those for heart health especially also with the keto diet promotion raging and holidays around the corner we're going to just take a minute to go over all things fats and really how there can be some good ones and maybe some not-so-good ones the first let me introduce myself my name is Christy Goff I'm a registered dietitian with the Living Well Alliance team at pacmed our main goal is to offer programs that help prevent chronic diseases while improving the health of our communities for the webinar today I'll ask you to make sure your phones and computers are on mute and sometimes if you do come off during the call just make sure you meet yourself or I'll try to meet you as well still be some polling questions today so feel free to participate and nose and then of course at the end I'll have a follow-up email with a survey a copy of the presentation and some additional resources and handouts and recipes which hopefully you all need around this time of year so our goals for today are learning more about the different types of fats exploring current recommendations for how much to eat and what to eat and then I hope to leave you a confidence about choosing what kind of fats to use in your cooking what to eat and then what to feel good about so let's start with the basics we all need fat we need about 20 to 35% of all of our daily calories coming from fat because of all the different functions they provide so these are just a few but normal growth and development is required with fats and they interfere they help create some of the hormones that we have in our bodies that's in the most concentrated source of energy so we get about 9 kg per gram of calories from our fat whereas from protein and carbs we get about 4 that helps us absorb certain vitamins iceless it out a few of the fat-soluble vitamins there and we just find it it's more effective to get into the body if it has a little source of fat with it additionally we find it's providing cushion for our organs maintaining our cell membrane so all of our cell membranes are wrapped with phospholipids which are a function of fat are the backbone of hormone function and then best of all they really do make food taste good so they have of a way in her mouth to carry good flavor throughout the body and really make things CC which is why we gravitate towards them most of the time to start us off I'm going to do a pulling question what are the two major types of fat and hopefully you can see this on your screen the first choice is cholesterol and vegetable fat unsaturated and saturated fats oils and animal fats and then lastly saturated fats and liquid fat so what are the two main types of that before we go into those details if you have any questions feel free to write those in the chat bar and I can get them get to them throughout the presentation or at the very end I didn't check any one up it looks like most of your choosing the unsaturated and saturated fat that's great I'm glad you've heard of those two common fat sources you are correct the other ones are different types of fat but it's not the name category per se alright so let's get into those two types of fats are saturated and unsaturated these refer to the structure of the fat so in a saturated fat the carbon atom atom in that line of carbon is totally covered with hydrogen atoms or they consider that saturated this makes them solid at room temperature you might have played around in organic chemistry or regular chemistry with models and that's kind of how they move they're just really stuck in their form these are found in red meat dairy products coconut oil and some fried foods and that sort of thing the other set of fat is unsaturated fat and that includes trans fat but what kind of get to that on its own unsaturated fats are liquid at room temperature because they have a few double bonds that allow the movement of the fat molecule to circulate through typically these are again fluid at room temperature things like oils avocado salmon are fish nuts and seeds walnuts so all of those things that we know and our bodies are really healthy for us then we have this other group called transfer like I mentioned this is an unsaturated fat but there's two types that that it comes in there's one that's naturally occurring and this one is from ruminant animals like cattle sheep goats and then we have the artificial trans fats which is created in our industrial process which adds a hydrogen basically to anything liquid so that it can make it more solid and more preserved so trans fats we made because they're really easy to use in storage of our food products they're really inexpensive and it makes things last a long time and this was kind of the big to-do in the 90s where were like oh we have things that are more shelf-stable this is great however we are finding that the probably one of the worst fats to eat so they're currently trying to take them out of our food industry altogether and I know of Europe has already done that successfully and we're just lagging on that front the trans fats are not so good for us because they directly raise our bad cholesterol levels and lower are good cholesterol levels which will talk about shortly those two types of cholesterol we also find in the research that trans fats increase your risk for developing heart disease stroke and also type 2 diabetes with a significant relationship so we just want to avoid these all together we're go over amounts in a little bit but just know that these are mostly a man-made fat and we don't want them in our diet so let's review our cholesterol and triglycerides before we get into the types of that because a lot of the research around the good and the bad fats are because of our cholesterol in are triglycerides levels the cholesterol is a waxy fat-like substance that's found in the body we both make cholesterol and we get it from food so from animal sources mainly there are different types of cholesterol you can see at the bottom of the screen they're labeled as LDL and HDL the stands for lipo density sorry low-density lipoproteins sorry about that and that's LDL and then high-density lipoproteins is the HDL so first the LDL is if it's in too much abundance we consider this one that the more unhealthy want because it can form a thick hard deposit that narrows the arteries and makes them really less flexible and this condition you might have heard about is called atherosclerosis when there's just so much of this plaque that's layered upon layered in the arteries like you can see in the right hand side picture if that artery gets to blocked that's that's when a heart attack or a stroke can happen so this would be like a direct correlation to potentially having a lot of this LDL cholesterol in the body or at least one risk factor and then we have the HDL which is the the good ones so to speak and HDL takes the LDL that's may be excreted in the body there's leftover and it takes it back to the liver to reuse and do something else with so this is why it's considered the good cholesterol because it's not causing more cholesterol to be in our blood supply it's actually taking it back to the liver and controlling some of the levels that we have going on in the bloodstream let's look at the numbers real quick so our total cholesterol we want less than 200 and this is a portion of our LDL HDL and triglycerides all put into a formula so it's not like a direct number that relates to each one of these it's all a percentage of that and then when you look further into the cholesterol levels LDL should be below a 100 HDL above 40 or four women we want it about 50 and then triglycerides below 150 so we know that usually the high production of LDL is related to heart disease we also know that lack of fiber also contributes to high cholesterol because fiber has a way of regulating how much cholesterol is being put out into the bloodstream so we only say high-fiber diets are great for digestion but we also really enjoy high-fiber diets for heart health and brain health so just a fun fact for you today and then we have triglycerides this is a type of fat in the blood that accumulates when we eat too many calories and it's basically a storage place for later energy use when triglyceride levels become too high they do increase the risk for heart disease as well so again the normal is around that 150 unluckily although it's slightly different form fat and cholesterol is a lot of the same strategies for lowering cholesterol also apply to lowering triglycerides so this is high-fiber lots of fruits and vegetables weight management exercise can both help cholesterol and triglycerides and then limiting just excess fat sorry excess food and General Tso triglycerides are interesting because there's more of our relationship between eating too many limited refined carbs and high triglycerides so whereas cholesterol is pretty related to fit the fat were eating triglycerides seems to matter more about what types of carbohydrates are eating so they are you eating the more processed ones or the more hole forms so that's also to note that sometimes triglycerides can start getting higher if there's a lot of alcohol in someone's diet so alcohol and again the excess calories from sugar and carbohydrates seem to have a greater effect on Rising those triglycerides alright so let's get back into some of the types of fats and how they're playing into our LDL cholesterol and potentially are triglycerides so as you see on the screen that high saturated fat intake is really associated with higher levels of both types of cholesterol so if you get a little bit of the bad but you also get a little bit of the good Elkins Pointe that cholesterol isn't necessarily the cholesterol that were eating is not always going to raise your dietary cholesterol but it's more of what types of fats you're with that type of cholesterol source so for example I know there's a lot of controversy around eggs but eggs we know don't have a lot of saturated fat in them so even though it is a higher cholesterol type food it's not paired with the saturated fat that might have a greater impact on our actual cholesterol numbers so that's just one kind of clarification that has come across over the years about how much we're getting how much knowledge we now have a round fat I got a lot of questions around coconut oil because coconut oil is a saturated fat also palm oil so when we look at the composition of coconut oil it is a very highly saturated oil it's about 82% saturated fat and I know it's a slightly different formulation as compared to a Dairy type saturated fat however in the research we do know that it's still raising are both cholesterol so this is called hypercholesterolemia or emic and this is basically saying it's freezing your cholesterol we used to think it kind of bypassed that part of it and we could eat more of it but it's not necessarily a health food it's very tasty and it can be part of a healthy diet but it's not all that it may was made out to be in our media so end recommendation for coconut oil is using with caution as you would with any other saturated fat food we we like to have some saturated fat in our diet so this is something to remember on like trans fats where we want to eliminate as much as possible with saturated fats we eat a we won about 10% or less of her total calorie intake coming from saturated fats because I do still play a role in our bodies we just usually eat too many of them and then we're on to the healthier oil soap versus they're broken up into a couple different types of unsaturated fat so the first type is the monounsaturated this is also known as omega-9 fatty acids if you've ever seen those on a supplement or some kind of label this is what it was referring to and they do a great deal to protect the heart their associated with lowering both systolic and diastolic blood pressure so both numbers on that scale they appear to even improve insulin sensitivity when they replace saturated fatty acids or carbohydrates in a diet so that's something interesting especially with the prevalence of type 2 diabetes we also find that monounsaturated fats can lower your bad cholesterol your LDL and raise your good cholesterol to HDL so this is one of the only types of fats that we find that does that and when we look in the research it seems to drop your total cholesterol by 6 to 10% which can be really significant when we think that a lot of medications are doing about the same percentages so I have a list of foods that are considered are monounsaturated fats this is olive oil which is why we hear so much about the benefits of olive oil and then of course Olive how do you make olive oil avocados is another type of monounsaturated fat or avocado oil nuts like peanuts almonds walnuts hazelnuts all those nuts have some good monounsaturated fats to them and then your seeds as well so sunflower seeds pumpkin seeds excetera the next type of unsaturated fat is are polyunsaturated fat so these are considered omega-3 and omega-6 is so you probably heard about a mega threes but Mega sticks is are basically everything else that's considered a polyunsaturated fat a mega threes are found in the first two bullet points and then are Mega sticks is are more of our other oil that we have in our food system I'll add to that as we go as well so polyunsaturated fats are said to decrease our bad cholesterol LDL and this can also drop the total cholesterol about 8 to 12% that's pretty cool although we don't find that it raises RH gel-like are monounsaturated fats to we know a lot more about omega-3 fatty acids I have another slide on this in a second but we know that these can help improve our blood triglycerides and also potentially are good cholesterol levels HDL so lots of good research around both of these types of fats being really heart healthy and in essence prevention of a lot of brain disorders as well sell anything that's good for your heart remember is going to be good for our brain health and outcomes around dementia Alzheimer's Etc so I promised a little bit more on Omega threes so a mega threes have their own side because of all their amazing properties to them so these are just three of the top ones I wanted to point out today but it can be associated with lowering blood pressure and although it's just a few millimeters lower that can make a big difference when you're talking about prehypertension versus hypertension versus really high blood pressure the biggest influence that omega-3 seems to do on our triglyceride levels and our cholesterol levels is really targeting the the reduction of triglycerides so this can be helpful especially when you're thinking about extra triglycerides in the body you definitely don't want those to be too high and this can generally reduce the overall inflammation of the body so some dishes that it's been studied for our things like arthritis or some autoimmune diseases have good luck with omega-3 use especially in supplemental form kind of a higher dose so let's talk about supplements for a second so interesting lie there has been no real research on omega-3 supplementation helping against heart attack stroke or any kind of cardiovascular disease events so that's cvd on the screen there however again like we said it does show a reduction of triglycerides and this is where they usually supplementation of a fish oil because you get a little bit more than you would with some of the sources I mentioned above actually you're not eating fish or some of these seeds up there there's really not a huge source of Omega threes in our American diet so when your supplement when you're looking at supplements make sure that again it's cold press that means it's limited processing make sure it's from a trusted brand usually you can go on their website and find the philosophy of their fish oil because again once you condense a bunch of fish oil there can be other contaminants in its use want to make sure you're trusting the supplement that you're taking and then the ratio is DHA to EPA about two-to-one some supplements will break these out and show you the amounts of each of them but this is specifically when looking at the reduction in triglycerides and I'll give you some follow-up resources on the Omega threes but a couple brands of fish oil that I have feel trusted by are the Nordic Naturals barlean's is just up above Bellingham got to tour their plant and then Carlson something Carlson is a really good brand to that's part of the Pacific Northwest Sao 2 summary we're going to try to influence your diet by eating mainly unsaturated fats so when cooking trying to switch butter and some of your dairy product fats or even coconut oil to our lower or are unsaturated olive oil and canola oil avocado oil and then sparingly using corn and soybean oil as we find that those in large amounts aren't really that great for us either so sticking with like the unsaturated or that the monounsaturated fats is really helpful I will send a hand out on some of the smoke points for these unsaturated fats the one of the benefit of using saturated fats while cooking is because they don't burn when you heat them whereas some of the unsaturated are more delicate so there is like a rule of thumb if you're cooking on high high temperature heat do you certain oil versus if you're cooking at low or just using it as a salad dressing you can use a whole other set I can't lie we want to limit our saturated fat so like I said we don't want to have a 0 a day your your allotted a specific amount and it depends on your situation you might have gotten a different recommendation from a doctor if you've had a previous high cholesterol or a previous heart attack or stroke but in general for most adults that's 20 grams of saturated fat or less a day it based on a 2000 calorie diet if you know the amount of calories that you on average eat a day you can take about seven to 10% of this and that's a good range to the end as well for saturated fat against just a reminders of what foods saturated fats are high in so again if you have sausage or bacon or beef and something can you stop it out for maybe a lower saturated fat meat products like chicken fish that sort of thing again you could bake something instead of frying something sometimes to limit the amount of saturated fat and then just watching the higher fat dairy products like butter ice cream cheese and maybe doing less or just a lower fat variety and then lastly try your best to remove those trans fat so again research has really linked this closely with cardiovascular events and they still have it in some of our food so it's just good to be a nice label reader they will be on the label if there is trans fats in your product so if it's for example a donut a cake or chips and it says 0 trans fats you can be assured that there is less than 0 in your package food the things that should be liquid a lot of margins used to have trans fats but I know they're transitioning and not having as many in them so you can just look for the brand that you enjoy and taste good but also check out make sure they're 0 trans fats in them so you're some suggestions I just want to leave you with a couple of food choices that you can do and daily swaps to start getting a little bit more particular around what types of fat you're using in what types of meals so the first one ideally if you can eat fish twice a week that's a really easy way to get your omega-3 fatty acids in and that's about the amount you need for your health so salmon sardines mackerel rainbow trout those are all really high in omega-3 these things like shrimp tuna are pretty low in the Omega threes so I'll also send that list as well as just some higher foods that have omega threes in them even if you can replace some of your red meat with a lower weiner protein like chicken or poultry that can be a nice way to just start start reducing that saturated fat intake nuts are a great source of unsaturated fats so if you like nuts just make sure that you're not eating the entire jar of nuts cuz they are pretty high calorie but this is a great thing to add on top of your food to add a nice Crunch and to just get some of those filling fats for your snacks you can add avocados to different foods I love using avocado and a lot of cheese replacement recipes so if you want to reduce your cheese consumption for that saturated fat intake on you can cut up an avocado put it in an omelette and cook it you can add it to a sandwich you can add it to a pasta salad so there's a lot of different ways you can utilize avocados and hopefully still get that mouth feel that you would with cheese and other fats but having that really healthy monounsaturated fat when you're baking you can do a lot of substitutions there is some great ones if you do want to reduce the amount of butter or sugar in a recipe so this one on your screen is replacing 1/4 cup of butter with three tablespoons of olive it may change the outcome of the consistency slightly so because it's going from a solid to a liquid so I would just make sure you're looking up a recipe that's been tested before you go and start changing too much in baked goods specifically in regular Savory recipe that usually doesn't matter as much the consistency won't be changed if you use olive oil instead of butter in them a stir-fry for example one question I get is about cashew nuts and they do have a lot of fat in them but they are mostly the unsaturated fat so it's still consider those a healthy snacks I'm just again a portion of regular portion size for nuts is about the palm of your hand so I know it's really easy to overdo not to have some clients that you know eat them because I think they're healthy but then they eat too many and there are pretty hard to digest so just know how much you're eating and just try not to eat again like a whole container or so to speak but they can be a great snack especially the cashier and then when you're cooking or when your shopping just check the list of ingredients right so again for the partially hydrogenated oils this is basically a fancy term for trans fats or some manipulation of the fat so it's good to try to avoid these as possible we can have about 2 grams a day of the trans fats and still be considered healthy but you just want to make sure if you if there's other options to choose those I have a question about oatmeal helping reduce your fat and I would say that oatmeal is usually used for a cholesterol-lowering technique because of its fiber but I wouldn't say it's not silly helping reduce the amount of fat in your body so oatmeal is a really good one because it has soluble fibers in it and then it has another component that helpful for making sure your body isn't producing as much cholesterol so it's kind of a fun one to try so if there is some validity in that claim on the oatmeal package that is heart healthy system inspiration for you before we go is I'm just trying to think about how you can get a lot of colors in your food again fiber is going to help with her cholesterol levels as well so making sure you have fiber rich options there these are just healthy ways to make egg salad sandwich since typically it's with some mayonnaise which is some saturated fat and it depending on the type you're using and then eggs again are always kind of like do we eat eggs or do we not eat eggs and eggs can be a really healthy part of your diet especially with the cholesterol this is a veggie breakfast hash so it has some potatoes and some vegetables a way to get a little bit more color into your breakfast meal I know that one's challenging for some people going back to the oatmeal have another question about the different types of oatmeal and they have about the same amount of fiber in them there just one is more processed than the other and that's not necessarily a bad thing it's they take steel cut and they squish it a little bit more and that's the regular oats and then they chop it and squish it more and that's the instant oats so it affects the cooking time but the carbs and the the fiber content are about the same he might get slightly more in the steel cut oats just because it's less processed I'm salmon and veggies is always a good one to have you can even do a side of noodles or rice or bread something to tide you over I like to utilize vegetables as the main ingredient and then stuff it was something else that this could be like a Choco Taco Pepper or you could stuff it with different types of leaner Meats not sort of thing I know a lot of people like the turkey beef and that can be a way to cut the saturated fat pretty significantly no other ideas I'm glad you asked about oatmeal because oatmeal doesn't always have to be used as a breakfast and we can grind it into flour and use it in a lot of different recipes that call for just regular glue and flour if you replace all of it it's going to be much denser so know that if you just replace some of the flower in your recipes are going to probably have a better outcome so I like to use in meatloaf I might use it for pancakes and it's away again to get more fiber into your meal and more whole grains which usually have some more nutrients Associated than the process flow all right so I know we all have send it out maybe the keto diet I've seen that on lower down a little bit in the last few months but I know we're getting into January and New Year's resolutions so I thought I would just spend the last little bit on the ketogenic diet so it's commonly called the keto diet are or ketogenic diet and it's a calorie-restricted diet that mandates a high fat intake which is why were talking about today so 80 to 90% of your total calories are coming from fat again normally it's about 25 to 30% of your total calories that's a huge jump from there and then come combined with a high fat intake your carbohydrate level is very low about less than 5% of your total calories and this puts your body into a state called ketosis this is when there is not enough glucose available to fuel the brain and maintain your normal functions in yourself so your body starts to break down these are called ketones which is where the name comes from and ketones eventually do you replace the glucose as the main energy source for the brain so people find that the first week they go through this diet they feel pretty terrible as they're transitioning then once your body gets the hang of breaking down at these fatty acids you're actually breaking down a lot of the fat that you are eating so is originally used as a medical diet for seizures are patients that have seizures especially in kids and then it's kind of evolved into a more of a weight-loss scheme so what's happening is that people don't feel as hungry because they're eating such high amounts of fat and because of the breakdown of fatty acid that actually has an effect on weight loss typically the current research on weight loss for example is that it's pretty similar to other diet outcomes where it seems to work for some people not others and then it seems to work not necessarily long-term I would always encourage you to work with your provider if you are thinking of doing this kind of diet because it's nice to get your Labs tested before and after going on such diet because again there's definitely types of fats that we need to consider when we're doing the ketogenic just like a regular healthy diet so for example if we're eating bacon beef and cheese on everything to try to get that fat intake in will find an influence on our cholesterol levels in most people so I left a resource for you at the end of the screen that kind of breakdown the popular eating plan and then this is just kind of what I reviewed sell lots of fat in the diet the protein content stays the same and then the carbohydrates are what is about 25-30 grams of carbs so you are limited to just really low amounts of berries and fruits and pretty much no carbohydrate and I like a refined form like a cracker or things like that with eggs I had another question about Exile just get to you real quick so once I mentioned didn't have a lot of saturated fat so I find that there still if you're doing a lot of unsaturated fats in your diet eating a lot of fruits and vegetables and fiber rich foods that eggs don't really seem to influence our cholesterol levels still even with two to three maybe even for a day it's good to always know what your cholesterol levels are and then if you do are eating like six or seven a day and you find your cholesterol levels are high it is something that we can work to reduce just have more variety in their protein but I haven't really seen any research saying that it does affect even at higher intake amount so I feel comfortable recommending around to a day I know some people eat a lot more than that and I would just caution you to get your cholesterol levels checked to make sure they're still in a good way and paired with bacon and butter and a lot of things that we often eat eggs with alright so this is just again some inspiration of how you can get the my plate model into the various meals that's like a Mexican you could do a Mediterranean so over the holidays even though there might be lots of new and exciting Foods trying to eat that around the my playstyle so I have to Plate fruits and vegetables corner of the plate start recorder play protein can really just start you on a really nice path for portioning out your Foods still enjoying various Specialties but just having your vegetables can kind of help offset some of those things I know I'm a little bit over and apologize for that can I answer any other questions before you guys leave me today I have some other resources here from the Heart Association the Academy of nutrition and then one that goes over the differences in the Omega so that's a mega 3 6 and 9 so with the people on the live call you'll get the handouts email to you and then if you're listening to this recorded you could email me at the email on the screen and I will send you those individual and if you don't get the handouts by the end of today you can also email that address on the screen