WEGOTTHE EATS!

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Bring On the Heat! (not inflammation)

Summer and sunshine have finally made its official appearance on the Oregon coast. Inflammation is one kind of heat that I do not want! In this quarter's newsletter, we will learn all about inflammation and leave turning up the heat to mother nature! I love hearing from all of you! Hope you see you at the Health Fair on June 29th! I can be reached at Ext 4200 and sshiu@luhonline.com.

INFLAMMATION



What is inflammation? What are the benefits of an anti-inflammation diet? We all know inflammation is bad but we do we know why inflammation is bad or what is actually happening in our bodies? Let's dive deeper in the myths and truths of inflammation and what we can do about it.

CHRONIC VS ACTUE

Technically not all inflammation is bad, acute inflammation is a normal and necessary bodily process. Acute inflammation is the redness, swelling and warmth which occurs in response to an injury and usually resolves in a few days. Chronic inflammation is a gradual process in which inflammation is turned on but does not resolve in a few days Some symptoms of chronic inflammation are fatigue, weight gain, headaches, skin rashes, GI issues and muscle or joint pain. Chronic inflammation also known as systemic inflammation is linked to many chronic disease such as type 2 diabetes, Alzheimer's, cancer, heart disease, stroke, skin conditions like eczema and arthritis.

ANTIINFLAMMATORY DIET

Diet and other lifestyle changes can help curb chronic inflammation. In addition to avoiding pro-inflammatory foods, staying physically active (150 to 300 minutes of moderate-intensity per week and 2 days of strength training), managing chronic stress, avoiding smoking and limiting alcohol and getting at least 7 hours of sleep nightly can help prevent systemic inflammation. Now we know what lifestyle habits to follow, what foods should we avoid?

PRO-INFLAMMATORY

There are certain food and food groups that can promote inflammation and contribute to chronic inflammation. These include refined carbohydrates such as white bread and pastries, fried foods, sugar sweetened beverages, red meat, processed meats, margarine, shortening, lard and excess alcohol. These dietary components are main staples of the Western diet which has been associated with increased markers of inflammation = pro inflammatory.





WHAT IS LEFT?

Certain foods contain helpful nutrients and should be consumed daily to mitigate and prevent chronic inflammation. These foods include whole grains, fruits, vegetables, seafood, nuts, unsweetened beverages such as tea and coffee and herbs and spices. So what's in these foods to help combat the dreaded slow burn of chronic inflammation?

FIBER

Fiber is a common theme when we look at the anti inflammatory foods listed. As we have learned from past issues, fiber is the indigestible component of plant foods. Fiber helps support a diverse and healthy microbiome and increase the production of short chained fatty acids which are responsible for preventing intestinal permeability aka leaky gut. Leaky gut is the result of bacteria traveling to other areas in the body resulting in inflammation or disease.

PHYTOCHEMICALS

We also discussed phytochemicals in a previous issue but as a recap they are bioactive compounds found in plants which have a healthful benefit beyond normal functions. For example curcumin found in turmeric is a phytochemical known for its anti-inflammatory properties. Ginger, dill, fenugreek, clove, nutmeg and fennel have been shown to fight inflammation.



OMEGA - 3 FA

Omega 3 fatty acids are fats which our bodies cannot make and therefore we must obtain them via our diet. Omega 3 fatty acids have been shown to prevent the production of pro-inflammatory markers such as cytokines. Another way to prevent inflammation is to ensure adequate intake of omega 3 and reduce intake of omega 6 fatty acids which can promote inflammation, narrowing of blood vessels and increased platelet aggregation which are all risk factors for heart disease. Replace sources of saturated fat and omega 6 fatty acids with omega 3 fatty acids for decreased inflammation, oxidative stress and reduced risk for heart disease and insulin resistance.

Dietary Patterns

There is not really a set diet when it comes to reducing inflammation however there are certain dietary patterns which have been shown to reduce inflammation and chronic disease risks associated with inflammation.

Mediterranean Diet: focuses on fruits, vegetables, whole grains, unsaturated fats: olive oil, legumes and seafood. Daily glass of red wine is encouraged, (Daily Max 1 glass for women and 2 glasses for men). Moderate portions of poultry, dairy and dairy products and eggs and limit sugar sweetened items and red meat. This diet was created to help decrease risk of gardiovascular disease.

DASH diet (Dietary Approaches to Stop Hypertension): based on fruits, vegetables, low fat milk, spices and herbs, whole grains, fish, poultry, beans and nuts for increased intake of potassium, magnesium, calcium, fiber and protein and limits sodium, sugar sweetened items and beverages and red meat for reduced saturated and trans fat intake. This diet focuses on foods that will help lower blood pressure.

MIND diet: hybrid of DASH and Mediterranean diet which includes whole grains, olive oil, beans, nuts, fish and poultry, vegetables with an emphasis on leafy greens and berries. Studies found this dietary pattern will reduce the risk of Alzheimer's disease which is a pro-inflammatory disease.

Final Thoughts

In conclusion, moderate and variety are key to fighting inflammation and staying healthy. All the components of an inflammatory diet are featured in different dietary patterns, shown to reduce risk of a chronic pro-inflammatory disease. Try to limit foods high in saturated fats, trans fats. refined carbohydrates and added sugars and make the majority of your diet: fruits, vegetables, whole grains and unsaturated fats. Look below to find some ideas and inspiration to include more anti-inflammatory foods into your diet!

SAMPLE MENUS

Mediterranean

MIND

DASH

Buckwheat Pancakes with seasonal fruit (recipe)

Lunch: Salmon patties with Cilantro Lime Sauce (recipe) with salad *Canned seafood is

Canned seafood is packed with nutrients and a cost friendly source of omega 3!

Snack: Avocado hummus with carrots and bell pepper (recipe)

Dinner: Chicken & Chickpea Tagine with steamed veggies (recipe)

Dessert/Snack: Black bean brownies with walnuts (recipe)

Breakfast: Green berry smoothie (<u>recipe</u>)

Snack: Cottage cheese dip with celery and cucumbers (recipe)

Lunch: Mediterranean Cobb Salad (recipe)

Dinner: Sardine Pasta (recipe) and roasted broccoli (recipe)
*Canned sardines are affordable, low in mercury and packed with omega 3 fatty acids and calcium!

Dessert/Snack: Lemon Tahini Bars (<u>recipe</u>)

Breakfast: Overnight
Berry Banana Oats
(recipe)

Snack: Avocado,
Arugula, Tomato,
Walnut Toast (<u>recipe</u>)

Lunch: Falafel Wraps (recipe for falafel and recipe for wrap)

Dinner: Turkey Meatball Alphabet Soup (<u>recipe</u>) *A fun and nutritious choice if you have kiddos!

Dessert/Snack: Brown
Rice Apple crisp (
recipe)
*Add a dollop of lowfat
Greek yogurt for
calcium and protein
boost!

Have questions or would like suggestions on creating your own meal plan? Come to Employee Health Fair on June 29th and see me for a mini nutrition consultation! I look forward to seeing you!

REFERENCES

- 1.Bailey MA, Holscher HD. Microbiome-mediated effects of the Mediterranean diet on inflammation. <u>Advances in Nutrition</u>. 2018 May 1;9(3):193-206
- 2. Chakaroun RM, Massier L, Kovacs P. Gut microbiome, intestinal permeability, and tissue bacteria in metabolic disease: perpetrators or bystanders?. Nutrients. 2020 Apr;12(4):1082
- 3. Estruch, R., Sacanella, E., & Lamuela-Raventós, R. M. (2020). Ideal dietary patterns and foods to prevent cardiovascular disease: beware of their anti-inflammatory potential. Journal of the American College of Cardiology, 76(19), 2194-2196.
- 4. González, F., Considine, R. V., Abdelhadi, O. A., & Acton, A. J. (2020). Inflammation triggered by saturated fat ingestion is linked to insulin resistance and hyperandrogenism in polycystic ovary syndrome. The Journal of Clinical Endocrinology & Metabolism, 105(6), e2152-e2167.
- 5. Mandal, D., Sarkar, T., & Chakraborty, R. (2023). Critical review on nutritional, bioactive, and medicinal potential of spices and herbs and their application in food fortification and nanotechnology. Applied Biochemistry and Biotechnology, 195(2), 1319-1513.
- 6. Mariamenatu, A. H., & Abdu, E. M. (2021). Overconsumption of omega-6 polyunsaturated fatty acids (PUFAs) versus deficiency of omega-3 PUFAs in modern-day diets: the disturbing factor for their "balanced antagonistic metabolic functions" in the human body. Journal of Lipids, 2021, 1-15.
- 7. Szczechowiak K, Diniz BS, Leszek J. Diet and Alzheimer's dementia– Nutritional approach to modulate inflammation. <u>Pharmacology</u> <u>Biochemistry and Behavior</u>. 2019 Sep 1;184:172743.

