

Fat is your friend!
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Fat has been demonized, villainized and condemned for decades. It has been blamed for the chronic diseases that we are seeing such as heart disease, diabetes, high blood pressure and obesity.

Unfortunately this myth has been promoted for decades so many people think that this is the truth. If we look back at the history of the recommendations about fat intake, we can see that there was massive confusion about fat intake.

First, cholesterol was bad for you and the experts told us to avoid eggs but now eggs are back in vogue. Then it was avoid all saturated fat so we were told to switch to vegetable oils because they were healthier.

The edible oil industry responded by creating a healthy alternative: margarine. It was the “I can’t believe it taste like butter” era or fake butters. But after years of eating these ‘healthier fats’, the medical community dropped the bomb and told us we were eating trans fats and we were killing ourselves!

Although experts are recommending that we eat some fats, the stigma that fat is bad still lingers within the fitness industry and medical community. Many of our clients still think that fat is the devil and avoid it like the plague!

We often hear the phrase:

“Eat healthy fats”.

What is a healthy fat? What’s a bad fat? It can be very confusing for many of our clients to sift through all the information that is out there.

What if I told you to only perform crunches for your core and avoid all other abdominal exercises? That’s crazy! Isn’t it? As fitness professionals, we all know there are many great exercises for the core besides crunches.

In the same way, many of our clients are told to eat only one or two types of fats when there are many fats that are necessary for vital functions in the body and for health and performance.

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I'm hear to tell you that:

Fat is your friend!

We have to look at what fat is to the body and how the body uses fat. Fat is essential for every cell of your body. Every single cell of your body has fat in it. Fat is important for many functions in the body:

- Cell membrane health
- Energy
- Vitamin carrier
- Mineral absorption
- Hormones
- Blood sugar control
- Controlling inflammation
- Fat burning
- Satiety

Fats are classified as monounsaturated fats, polyunsaturated fats and saturated fats. But this is a misnomer.

An expert in fats, Dr. Mary Enig, author of Know Your Fats, says:

“The practice of calling animal fats “saturated” is not only misleading, it is just plain wrong. For example, beef fat is 54 percent unsaturated, lard is 60 percent unsaturated and chicken fat is about 70 percent unsaturated. This makes these animal fats less than half saturated. Therefore they really should be called unsaturated fats. In fact, none of the naturally occurring fats and oils is made up of only all saturated or all unsaturated fatty acids; rather they are mixtures of different amounts of various fatty acids.”

So calling animal fats “saturated” is incorrect. This is impossible to do because whole foods with fat in them are made up of a blend of fats.

Most people look at an egg and say it is all cholesterol and saturated fat and avoid it. Yes the egg does contain cholesterol, saturated fat but it also contains monounsaturated fats such as oleic acid. Depending on what the chicken ate, the egg may also contain the all-important essential fatty acids as well.

When it comes to recommending fats, we should recommend all of the fats. There should be a blend of saturated fat, monounsaturated, and polyunsaturated.

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Avoid all Trans Fats!

There is one exception: avoid all trans fats. Trans fats are chemically altered fats that have been changed.

Liquid fat → Solid fat

Typically, vegetable oils such as corn oil, cottonseed oil and soybean oil are converted to a solid fat. In this process it changes the oil to a chemical that looks like plastic. All the vegetable oils are very unstable because of the high amounts of omega 6 fatty acids. Therefore if the vegetable oils are heated, the heating will convert the vegetable oils to trans fats as well.

According to Sherry Rogers, MD, author of Detoxify or Die, says:

“When they replace the good oils in the cell membrane, hormone receptors no longer properly function and allergies surface. When trans fatty acids displace the good oils in the mitochondrial membrane inside the cell, they make it impossible to lose weight or to have boundless energy. They accelerate every disease and every facet of aging, making it impossible to completely heal any condition until the body’s chemistry has been returned back to normal.”

Some of the health problems that are associated with trans fats are:

- Lowers HDL
- Increases LDL
- Increases insulin levels
- Decreases testosterone levels
- Interferes with essential fatty acid synthesis
- Increase in fat cells
- Hyperplasia of fat cells

Saturated Fats

Some of you may be thinking that saturated fats are still bad for you but it is necessary for so many vital functions in our body.

Saturated fats are important for various reasons:

- Protects the liver
- Enhances the immune system
- Decreases inflammation
- Needed for the assimilation of essential fatty acids
- Preferred foods for the heart

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- Protect us against harmful microorganisms

The misinformation about saturated fats and chronic disease is guilt by association. We have to be very careful with research that saturated fats are bad and cause disease. In the midst of the grouping of fats, trans fats were grouped together with saturated fats. Therefore if trans fats were used in a study and unfavorable results came about, saturated fats were discredited along with trans fats.

Most foods that have saturated fats also have some cholesterol as well. To the same degree that saturated fat is necessary for the body, cholesterol is just as important for proper function of the body.

Cholesterol is important for:

- Cell membrane integrity
- Raw material for hormones
- Needed for bile production
- Raw material for vitamin D
- Heals tissues
- Nerve conduction (22% cholesterol in myelin)

The production of cholesterol is a self-regulating mechanism in the body. If there is no cholesterol coming from the diet then the body will up-regulate production. If there is plenty of cholesterol coming from the diet then the body will down regulate production.

At this point you may not be convinced that saturated fat and cholesterol are good for you and still think that it causes heart disease. Recent research shows us that heart disease is caused by inflammation of the arterial walls. It is not cholesterol that is the sole cause of heart disease. The body is smart and will put out the inflammation by using saturated fats and cholesterol to patch up the artery wall.

So it is not saturated fats and cholesterol that are the problem but excessive inflammation that is the main culprit in heart disease. Saturated fats and cholesterol are in the body to protect and heal the inflamed arteries in heart disease.

Cholesterol is only one marker in the blood that might possibly be a risk factor for heart disease. There are other markers that are risk factors in heart disease such as

- Triglycerides
- Highly sensitive C-Reactive protein

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- Homocysteine
- Lipoprotein (a).

What is interesting to know is that Lipoprotein (a) has been shown to decrease with the consumption of saturated fats!

Cholesterol Lowering Drugs

Be weary of cholesterol lowering drugs. Statin drugs are the number one selling drugs in the world. It does lower cholesterol but it will deplete coenzyme Q10 (CoQ10). CoQ10 is very important for energy in the body. The common side effect is low energy as well as myopathy (muscle pain).

As fitness professionals, we must be aware of these side effects. A client may be complaining that they are very tired during exercise sessions and sore for days after exercise. Your exercise program may be spot on but it's the drug that is causing all the problems.

You are not a medical professional so you can't tell your client to stop taking medications, but you can inform them of the nutrient depletion of the statin drug and recommend that they replace the CoQ10 with a supplement.

Monounsaturated Fats

As I said earlier a blend of fats is important for our bodies. Many of us have heard of the benefits of monounsaturated fats from the Mediterranean diet. The typical recommendation is to use olive oil as the main fatty acid. Olive oil contains oleic acid, which has been shown to decrease LDL cholesterol and triglycerides. Olive oil is rich in antioxidants and a substance called squalene. It has been shown to have anti-inflammatory properties and slow blood clot formation. It also enhances the absorption of omega 3 fatty acids within cells.

Another type of monounsaturated fat is palmitoleic acid. It is found mostly in animal and fish fats, especially chicken fat. Macadamia nuts have the highest amount at twenty percent. Palmitoleic acid is a high potency anti-microbial fatty acid.

Polyunsaturated Fats

Polyunsaturated fats are necessary as well. The most well known polyunsaturated fatty acids are omega 6 and 3. Technically they are referred to as linoleic acid and α -linolenic acid. These fatty acids are considered essential. Meaning that they can't be made in the body and must be eaten to obtain them.

The issue with essential fatty acids is the imbalance of omega 6 to omega 3. Research by Artemis Simopoulos, MD, has shown that the typical diet of many of our clients have 20 more times omega 6 versus omega 3 fatty acids. She says that the imbalanced ratio has implications on serious conditions and chronic diseases such as:

- Heart attack
- Stroke
- Cancer
- Obesity
- Insulin resistance
- Diabetes
- Asthma
- Arthritis
- Lupus
- Depression
- Schizophrenia
- Attention deficit hyperactivity disorder
- Postpartum depression
- Alzheimer's disease

Many of the omega 6 fatty acids come from too many vegetable oils in the diet and processed foods such as cereals and bread products. Reducing these types of foods will help balance out the omega 6 to 3 ratio.

Where should we get fats?

Always emphasize eating your fats. Supplements can be helpful but food is always the priority. One of the best sources of fats is red meat. Red meat contains unsaturated fats, saturated fats as well as the essential fatty acids.

There is one caveat about red meat. The fatty acids of red meat are dictated by what the animal ate. Therefore it is important to eat red meat from grass fed cows. The benefits include:

- Less toxins
- Less anti-biotics
- Fourteen times more omega 3 fatty acids
- Conjugated linoleic acid (CLA)

Conjugated linoleic acid's scientific name is alpha rumenic acid because of its origin in the rumen of ruminant animals. It is a therapeutic fatty acid. It is only found in grass fed meat and dairy products. It has been shown to

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be anti-cancer, anti-tumor, aides in fat loss, and lean body mass gain. Quite a cool fat and it only comes from grass fed red meat!

Eggs are a great source of fats. Remember the chicken comes from the yolk, so don't be an egg white eater. Eat the whole egg! Eggs have good amounts of cholesterol, saturated fats, monounsaturated fats as well as omega 3 and 6 fatty acids. When it comes to quality, always choose free-range organic eggs.

Butter is a great form of fat. It is very stable at high heat. If you can obtain butter from grass fed cows, you will obtain a fat that has high amounts of vitamin A as well as CLA. The short and medium chain fatty acids found in butter are highly antimicrobial, antifungal and inhibit the growth of viruses.

Coconut oil is a saturated fat that is made up of medium chain triglycerides (MCT's). Coconut oil a stable at high heat. It is approximately 50 percent lauric acid. Lauric acid has been shown to be a potent antimicrobial fatty acid. It is considered as a conditionally essential saturated fatty acid. Other benefits with coconut oil are:

- Decrease pro-inflammatory cytokines (TNF alpha, IL-1B, IL-6)
- Increases IL-10, an anti-inflammatory cytokine
- Monolaurin is anti-viral, antibacterial and antiprotozoan.
- Immediate source of energy
- Does not raise insulin or glucose
- Greater weight loss
- Thermogenic

Supplements

Gamma-linolenic acid (GLA) is a conditionally essential fatty acid that must be obtained from the diet. It has therapeutic benefits for conditions such as rheumatoid arthritis and premenstrual syndrome. Sources of GLA include: evening primrose oil, borage oil, and black currant seed oil. The dosage is 1 capsule twice per day.

Essential fatty acids are very important for dealing with inflammation. Fish oils have been proven to have an anti-inflammatory effect. The dosage should be two capsules per twenty kilograms of body weight.

Fat is part of every cell of our body. It's so important for normal physiological function and for health and performance. Fat has a tarnished image but hopefully you now understand that fat is essential for your health. Fat is no longer the enemy; Fat is your friend!

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References:

- Belch J.J.F., Ansell S., Madhok R., O'Dowd A., Sturrock R.D. (1988). Effects of altering dietary essential fatty acids on requirements for non-steroidal anti-inflammatory drugs in patients with rheumatoid arthritis: a double blind placebo controlled study. *Annals of the Rheumatic Disease*, 96-104.
- Clevidence B.A., Judd J.T., Schaefer E.J. Jenner J.L., Lichenstein A. H., Muesing R.A., Wittes J. & Sunkin M.E. (1997) Plasma lipoprotein (a) levels in men and women consuming diets enriched in saturated, cis-, or trans-monounsaturated fatty acids. *Arterioscler Thromb Vasc Biol*, 17(9):1657-61.
- Crayhon, R. (1994) *Nutrition Made Simple: A Comprehensive Guide to the Latest Findings in Optimal Nutrition*. New York, NY: M. Evans and Company.
- Cranton E.M., Frackelton J.P. (1984) Free radical pathology in age-associated diseases: Treatment with EDTA chelation, nutrition and antioxidants. *Journal of Holistic Medicine*. 6(1):6-37.
- Dahlén D.H., Srinivasan S.R., Stenlund H., Wattigney W.H., Wall S. & Berenson G.S. (1998) The importance of serum lipoprotein (a) as an independent risk factor for premature coronary heart disease in middle-aged black and white women from the United States. *J Inter Med*, 244:417-424.
- Enig, M.G. (2000). *Know Your Fats: The Complete Primer for Understanding the Nutrition of Fats, Oils and Cholesterol*. Silverspring, MD: Bethesda Press.
- Enig M.G., Atal S., Keeney M. & Sampugna J. (1990). Isomeric trans fatty acids in the U.S. diet. *J Am Coll Nutr*, 9:471-86.
- Fallon, F. & Enig M.G. (1999) *Nourishing Traditions: The Cookbook that Challenges Politically Correct Nutrition and the Diet Dictocrats*. Washington, DC: New Trends.
- Fumeron F., Brigant L., Parra H.J., Bard J.M., Fruchart J.C. & Apfelbaum M. (1991). Lowering of HDL2-cholesterol and lipoprotein A-I particle levels by increasing the ratio of polyunsaturated to saturated fatty acids. *Am J Clin Nutr*, 53:655-9.

Garg M.L., Wierzbicki A., Thomson A.B.R. & Clandinin M.T. (1989). Dietary saturated fat level alters the competition between alpha-linolenic and linoleic acid. *Lipids*, 24(4):334-9.

Khan H.A., Alhomida A.S. & Sobki S.H. (2013). Lipid Profile of Patients with Acute Myocardial Infarction and its Correlation with Systemic Inflammation. *Biomarck Insight*, 8:1-7.

Jensen R.G. (1999). Lipids in Human Milk. *Lipids*, 34:1243-1271.

Kabara, J.J. (1984). Antimicrobial agents derived from fatty acids. *Journal of the American Oil Chemists Society*, 61:397-403.

Kabara J.J. (1978). The Pharmacological Effects of Lipids. The American Oil Chemists Society, Champaign, IL., 1-14.

Lopez-Hertas E. (2010). Health effects of oleic acid and long chain omega-3 fatty acids (EPA and DHA) enriched milks. A review of intervention studies. *Pharmacol Res*, 61(3):200-7.

Nanji A.A., Sadrzadeh S.M., Yang E.K., Fogt F., Meydani M. & Dannenberg A.J. (1995). Dietary saturated fatty acids: a novel treatment for alcoholic liver disease. *Gastro*, 109(2):547-54.

Nanji A.A., Zakim D., Rahemtulla A., Daly T., Miao L., Zhao S., Khwaja S., Tahan S.R. & Dannenberg A.J. (1997). Dietary saturated fatty acids down-regulate cyclooxygenase-2 and tumor necrosis factor alfa and reverse fibrosis in alcohol-induced liver disease in the rat. *Hepatology*, 26(6):1538-45.

Pfohl D.L. & Green N.R. (1985). Effects of dietary fats and butylated hydroxytoluene on mutagen activation in rats. *Cancer Research*, 45:558-560.

Pfohl M., Schreiber I., Liebich H.M., Haring H.U. & Hoffmeister H.M. (1999) Upregulation of cholesterol synthesis after acute myocardial infarction—is cholesterol a positive acute phase reactant? *Atherosclerosis* 142:389-393.

Rogers S.A. (2002) *Detoxify or Die*. Sarasota, FL: Sand Key Company.

Sadeghi S., Wallace F.A. & Calder P.C. (1999). Dietary lipids modify the cytokine response to bacterial lipopolysaccharide in mice. *Immun*, 96(3):404-410.

Simopoulos AP. (1991). Omega-3 fatty acids in health and disease and in growth and development. *Am J Clin Nutr*, 54:438-63.

Simopoulos A.P. (1999) *The Omega Diet*. New York, NY: Harper Collins.

St-Onge M.P. & Bosarge A. (2008). Weight-loss diet that includes consumption of medium-chain triacylglycerol oil leads to a greater rate of weight and fat mass loss than does olive oil. *Am J Clin Nutr*, 87(3):621-6.

St-Onge M.P. & Jones P.J. (2003). Greater rise in fat oxidation with medium-chain triglyceride consumption relative to long-chain triglyceride is associated with lower initial body weight and greater loss of subcutaneous adipose tissue. *Int J Obes Relat Metab Disord*, 27(12):1565-71.

St-Onge M.P. & Bosarge A., T-Goree L.L & Darnell B.(2008). Medium Chain Triglyceride Oil Consumption as Part of a Weight Loss Diet Does Not Lead to an Adverse Metabolic Profile When Compared to Olive Oil. *J Am Coll Nutr*, 27(5):547-552.

Temme E.H., Mensink R.P. & Hornstra G. (1998). Individual saturated fatty acids and effects on whole blood aggregation in vitro. *Eur J Clin Nutr*, 52(10):697-702.

Uffe R. (2000). *The Cholesterol Myths*. Washington, DC: New Trends.

Voon P.T., Ng T.K., Lee V.K. & Nesaretnam K. (2011). Diets high in palmitic acid (16:0), lauric and myristic acids (12:0 + 14:0), or oleic acid (18:1) do not alter postprandial or fasting plasma homocysteine and inflammatory markers in healthy Malaysian adults. *Am J Clin Nutr*, 94(6):1451-7.

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