

PCOS NEWS

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Why is it so important that I come in for my appointments?

Every appointment that you attend provides information on the effectiveness of your treatment during the study. These appointments are ultimately what will determine if diet and/or exercise therapy should be recommended by physicians to women with PCOS. In today's busy world we realize schedules are tight, and free time is hard to find, but please remember that you are part of a small select group of women who are helping us learn more about the treatment of PCOS. Every little bit helps, so by attending your appointments you not only ensure comprehensive care for yourself, but you also will be making an invaluable contribution to the PCOS Diet & Exercise Study. Thank You!

Study Update

To date, **69** Women
have been enrolled in
the PCOS Diet and Exer-
cise Study!



WORDS TO LIVE BY

**LIFE
SHRINKS
OR
EXPANDS
IN PROPORTION
TO ONE'S
COURAGE**

- ANAIS NIN

PCOS and the “Metabolic Syndrome”

Sheila Laredo, MD



The National Health and Nutrition Examination Survey (NHANES) is a cross-sectional health survey of a 'nationally representative sample' of the civilian, non-institutionalized American population. The third version of this survey (NHANES III) examined over 8,800 men and women aged 20 or over between 1988 and 1994. This examination includes a survey as well as a physical examination and blood testing.

NHANES information has been used to gather health and nutrition information on a variety of issues over the years, including things like blood pressure, kidney failure, pregnancy, health behaviors and other health concerns. Recently, a study was published in the Journal of the American Medical Association (Ford et al, Jan 2002) looking at the prevalence of the “metabolic syndrome” in the general US public, using this NHANES sample.

The “metabolic syndrome” has also been coined “syndrome X”. As I have mentioned in previous newsletters, some (myself included) consider PCOS to be a “female syndrome X” in many of the women who have PCOS. For the purposes of this study, “metabolic syndrome” was defined as having at least 3 of the following:

- 1) Waist circumference > 88 cm (34.5 inches) in women or > 102 cm (40 inches) in men
- 2) Triglycerides >1.69 mmol/L (most labs report normal as <2 or 2.2 mmol/L)
- 3) Low HDL (the good one) cholesterol <1.29 mmol/L in women, <1.04 mmol/L in men (most labs report normal as more than 0.9 mmol/L)
- 4) High blood pressure >130/85 (most doctors consider 140/90 the cutoff)
- 5) High fasting blood sugar >6.1 mmol/L (7 or more is consistent with diabetes)

The results:

- 1) The overall prevalence of metabolic syndrome was about 22%.
- 2) The prevalence increased with age, from 6.7% at ages 20-29, to over 40% for participants over 60 years of age. Caucasian women had about the same prevalence as men, but African American and Mexican American women had higher risks than their male counterparts.
- 3) Based on this information and American census information, the authors estimate that 47 million residents of the US have the syndrome.

The study authors feel that weight and lifestyle management are” the cornerstones of treatment”. One barrier to treatment (which also applies in Canada) was felt to be the lack of health coverage for lifestyle management.

This study was important to me for several reasons:

- 1) Metabolic syndrome is extremely common (although it may be worse in the US because of greater rates of obesity than in Canada).
- 2) The prevalence of metabolic syndrome increases markedly with age.
- 3) Other studies have demonstrated that metabolic syndrome is associated with an increased risk of diabetes, heart disease, and mortality from heart disease and all causes. This raises the question of whether the usual cutoffs used are appropriate, as this study used more stringent criteria than the usual “normal” for HDL cholesterol, triglycerides, and blood pressure.
- 4) This study suggests that the natural history of metabolic syndrome may be one of worsening over time (although it is also possible that older people in the study had different risks accounting for the increased prevalence at an older age).

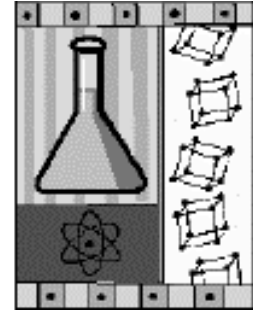
If worsening with age is the case, it is possible that the metabolic syndrome in women with PCOS may also worsen over time. Many women, once past menopause, may forget about PCOS because the menstrual irregularities, which are the most obvious symptom, disappear. Despite this, it may be that their heart disease risk is significantly increasing over time, related not just to aging but also to the worsening of the metabolic syndrome.

It is likely that lifestyle will become more, not less, important for women with PCOS as they get older, and as such, it is never too early to get started on good habits. One of the potential benefits of this study is that, if benefit from lifestyle interventions is demonstrated, there will be increasing evidence that lifestyle treatment is a legitimate first line medical option. Your participation in the PCOS Diet & Exercise study will be extremely important in helping to answer this question. This may help pave the way to convincing our health care systems to invest more in safe preventive medical approaches such as lifestyle.

MEET THE FAT FAMILY

by Christine Mehling, M.Sc.

It is probably the most talked about nutrient around. Most people think of fat as the villain: clogging arteries and leading to weight gain. If you have read about the new "fad diets", they on the other hand think the best way to lose weight is to eat lots of protein and fat. The Mediterranean Diet promotes the benefits of olive oil over saturated fat and carbohydrates. There is a lot of confusing information out there. And for those of us who are concerned about our health and the role that diet plays in maintaining and promoting good health it can sometimes be a challenge trying to determine what the facts are. The fact is that the amount of fat and the type of fat consumed in the diet does affect your health. Let's have a closer look.



To get the essential fat your body needs you need only 3-6 grams of fat per day or 2 ½ % of your daily intake of calories. In North America we consume about 35% of calories from fat with approximately 15% of total calories coming from saturated fat. We have the highest consumption of fat in the world. There are several reasons why it is so easy to eat too much fat. First, it tastes so good. Fat is what adds flavour aroma and texture to food. Second, fat is twice as energy dense as protein and carbohydrate. Fat provides 9 kilocalories of energy per gram while carbohydrate and protein provides 4. Therefore you can eat twice as many carbohydrates and proteins as fat and still get the same number of calories. But it is not only the quantity but also the quality of fat that makes a difference. Listed below are some definitions and descriptions about the different types of fat.

Saturated Fat: Are mainly found in animal and dairy products. Animal fat is about 50% saturated. Palm and coconut oil also contain high levels of saturated fat. An easy way to identify these types of fats is that they are hard or firm at room temperature. Examples of food that contain a lot of saturated fat are lard, butter, cheese, and the fat found in animal products. One teaspoon of butter contains 5 grams of fat of which 3 grams is saturated. Saturated fats are considered the main culprit for raising cholesterol levels and thus increasing the risk for developing heart disease. Saturated fat can increase the "bad" (LDL) cholesterol. Raised LDL levels increases your risk for developing heart disease. On average the saturated fat intake of North Americans is about 15% of the daily intake. Health professionals would like to see saturated fat intakes to be kept to less than 10% of the daily intake. To help reduce the saturated fat intake butter, margarine, cheese, chocolate, baked goods should be kept to a minimum. Lean meats should be chosen and total meat portions should not be greater than 5-6oz per day.

Trans Fatty Acids: Trans fatty acids are found naturally in meat and dairy products but are mainly derived from the hydrogenation process of vegetable and fish oils. Trans fatty are doubly as bad as saturated fats because they not only raise LDL levels (bad cholesterol) but also lower HDL levels (good cholesterol) and thus increase the risk of developing heart disease to the same or greater degree as saturated fat can. Trans fatty acids are found in many processed foods that contain partially hydrogenated fats like margarine, cookies, crackers, deep fried foods such as potato chips and french fries and other convenience and snack foods. So the wisest thing to do would be to eat these items as infrequently as possible. Labelling laws in Canada do not require companies to specify the amount of trans fatty acids found in the product but if the words hydrogenation or vegetable shortening come up on the ingredient list be aware that the product does contain some trans fatty acid.

Hydrogenation: is a process by which the physical characteristics of oil are changed from a liquid to a semisolid state by adding hydrogen molecules to unsaturated fats. Hydrogenation increases the plasticity and the "shelf life" of an oil. Hydrogenated fats are mainly found in margarine, and prepared baked goods. Therefore when looking for a margarine, look for the margarines that advertise that they are made with out any hydrogenation. Good choices include: Becel, Presidents Choice 7 reasons, Lanctancia's Olivena...and there are several others on the market.

Monounsaturated Fat: Fats that contain a lot of monounsaturated fat are liquids at room temperature. These types of fats are thought to have health benefits compared to saturated fats. Monounsaturated fats can help raise the good type of cholesterol (HDL) and reduce the bad type of cholesterol (LDL). Oils with the highest percent of monounsaturated fats are olive, canola and peanut oil.

Polyunsaturated Fat: are also liquid at room temperature. Limit polyunsaturated fat intake to no more than 10% of your daily intake. Polyunsaturated fats can also lower cholesterol levels, but these types of fats also reduce the good type of cholesterol (HDL), so it is thought that they are not as beneficial as monounsaturated fat. Higher intakes are thought to increase your risk for developing certain types of cancer. Corn, soybean safflower and sunflower oils contain the highest level of polyunsaturated fat.

Omega 3: Omega 3 fatty acids are thought to make the blood's platelets less likely to form a blood clot or stick to the wall of the blood vessels thus making the blood flow better. These benefits may help prevent an artery blockage and thus the risk of a heart attack or stroke. Omega 3 fatty acids are found mainly in fatty cold water fish such as tuna, salmon, sardines, mackerel, and lake trout. Flaxseed oil is another important source of Omega 3. Eating products that contain flaxseed, or adding fish to your diet are two good ways to include a source of omega 3 fatty acids in your diet.

Virtually all health organisations and government agencies recommend that we reduce our fat intake to less than 30% of all calories consumed each day. Just as important as looking at the quantity of fat in the diet, it is also important that we look at the quality of fat, veering away from sources that contain saturated fat and trans fatty acids. For an average woman, that translates to less than 60 grams of fat per day. How do we know when our diet is approximately 30% fat or contains less than 60 grams? Unless a lot of adding, subtracting, multiplying and dividing is done, it is pretty hard to determine the exact amount of fat in the diet. But by keeping a few guidelines in mind, it is not too hard to keep the fat intake at a heart healthy level.

1. Keep the total quantity of fat down as much as possible. Choose leaner cuts and smaller portions of meat and cheese. Limit the intake of baked goods, chocolate and savoury snack items. Avoid deep fried food items.
2. Eat less saturated fat. Minimize foods that contain animal fat and foods that contain hydrogenated fat.
3. Choose monounsaturated fat in place of saturated fat. Use olive oil or canola oil for salad dressing and to cook with.
4. Include a bit of Omega 3 fat in your diet on a weekly basis. Try a serving of cold water fish (3-4 oz) or flaxseed bread on a weekly basis.

Remember that reducing the fat in the diet is only one way to help make your diet healthier. Increasing fruits, vegetables, eating higher fibre and less processed foods are other important ways to help maintain a balanced and healthy diet.

On the lighter Side...

Vanessa R. Speers, M.Sc.
St. Mark's Kindergarten Class of '79



I often write about behavior change, goal setting, and motivation in this column - mainly because I feel they are important. Over the last month, however, I have felt the need to approach motivation, among other things, from a different perspective - perhaps you have too. This month, I recommend one of my favorite books - All I Need To Know I Learned in Kindergarten by Robert Fulgum. The collection of wisdom, insights, and inspirational thoughts takes a fresh look at some enduring truths, and offers some motivation from a different perspective. Enjoy!

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Most of what I really need to know about how to live and what to do and how to be I learned in kindergarten. Wisdom was not at the top of the graduate school mountain, but there in the sand pile at Sunday School. These are the things I learned:

- Share everything.
- Play fair.
- Don't hit people.
- Put things back where you found them.
- Clean up your own mess.
- Don't take things that aren't yours.
- Say you're sorry when you hurt somebody.
- Wash your hands before you eat.
- Flush.
- Warm cookies and cold milk are good for you.
- Live a balanced life.
- Take a nap every afternoon.



When you go out into the world, watch out for traffic, hold hands, and stick together.