



HAIRY, FAT, PREMENSTRUAL WOMEN WITH ACNE

What do women who complain of acne, premenstrual syndrome, excessive hair and the inability to lose weight all have in common? Hormone problems, of course!

There is a connection between all of these and there are considerable overlaps between some of these conditions as well.

Acne affects nearly 100% of people at some stage

Let's discuss acne first. Acne vulgaris, as it is known, is the most common condition seen by dermatologists and affects nearly 100% of the population at some point in their life. People with acne have a worse quality of life through embarrassment, depression, loss of job opportunities, social withdrawal and psychological stress. Some women will have had several unsuccessful courses of Isotane® from the dermatologists for this condition and still have the problem!

There are four main things that cause acne.

The first is increased androgen hormones which stimulate increased sebum production and the growth of sebaceous glands. This is a common contributor to teenage acne. In adult women, this is because they have an imbalance in their hormones.

The second contributor to acne is increased thickening of the top layer of the skin and the lining of the sebaceous gland ducts. These cells shed and plug up the ducts, causing white and blackheads. This is why treatments such as exfoliation, peels and microdermabrasion can be helpful.

A third contributor can be a bacterium called propionibacterium acne. This bacterium produces chemical messages that cause irritation and inflammation of the skin.

The fourth important contributor to acne is inflammatory substances produced by the body. In the case of women who are overweight, whose hormones are unbalanced or who have PMS, this can partially be a result of unbalanced hormones. In the case of women who cannot lose weight and women who have polycystic ovary syndrome, this is due to insulin resistance (covered below).

Treatment of acne

The general treatment of acne involves using a non-soap cleanser twice a day and ensuring no makeup is worn to bed. Alpha-hydroxy acid, lotions and scrubs are useful, as are topical retinoids, benzoyl peroxide and sometimes antibiotics on the skin as well as swallowed. Tea tree oil works as well as benzoyl peroxide in its antibacterial and anti-inflammatory actions, but neither of these prevents microcomedo (blackhead) formation.

Finally, Isotane® shrinks the sebaceous gland, reduces sebum formation and normalises skin cell behaviour, as well as being anti-inflammatory and inhibitory of the acne bacteria. The problem with this is the side effect of dry mouth, dry eyes, as well as itch and depression in small numbers of

people. Hormone therapies such as the contraceptive pill can be used as well. Lasers, light therapies, facials and other treatments all help, but don't cure this condition.

Insulin resistance in adult women

In adult women, what will really help this condition is attention to hormones, diet and a phenomenon called insulin resistance.

Insulin resistance is the body's increasing inability to deal with sugar. This phenomenon is found in women with polycystic ovary syndrome, women who tend to gain weight around the trunk, and those who cannot lose weight easily. Insulin resistance is also found in teenagers with acne.

Western diet and metabolic syndrome

If a person continues to eat the typical Western diet with sugar, white flour and lots of white starches, these starches turn into sugars in the body and so the sugar load becomes high. Some people have difficulty disposing of the sugar, so their pancreas has to start making more and more insulin. In the early phases, these people will have a normal fasting glucose level when tested. Later their fasting insulin level will start to increase. These people will start noticing that they cannot shift the weight from their trunk.

Insulin resistance is also associated with metabolic syndrome, which includes diabetes, hypertension and abnormal cholesterol. Metabolic syndrome is caused by the ever increasing calories, fat and sugar load in our typically sugar and starch-based diet. It can also be worsened by stress, inadequate exercise, chemical toxicity, hormone imbalances and any inflammatory conditions such as arthritis, autoimmune diseases or bowel diseases.

Metabolic syndrome starts with the accumulation of fat around the trunk, which then causes insulin resistance. This sets up a vicious cycle. As the person gets worse, they may start to develop high blood pressure, abnormal cholesterol levels, or polycystic ovary syndrome. If metabolic syndrome is allowed to continue to its fullest extent, it can be associated with heart disease, stroke, diabetes, blood clotting, depression, kidney failure, migraine, ringing in the ears, infertility, gout and many other problems.

As you've probably noticed already, metabolic syndrome is becoming a Western epidemic.

Early telltale signs that metabolic syndrome could be on the way include a waist circumference in women of over 80cm. If you add to that some blood pressure and cholesterol problems, you should be looking carefully at your diet and lifestyle.

Polycystic ovary syndrome (PCOS)

Often women with metabolic syndrome have hormonal imbalances similar to those of polycystic ovary syndrome.

Polycystic ovary syndrome (PCOS) is something that can be present from the teenage years onwards. It is commonly associated with hairiness, acne and being overweight, although some sufferers can be quite slim. One of the important things associated with polycystic ovary syndrome is insulin resistance as well as infertility. The infertility is associated with the hormonal imbalance.

Interestingly, using diabetes type medicines can help people with polycystic ovary syndrome and so can diet – this is the same for metabolic syndrome. PCOS patients can also get benefit from hormone therapies.

The diagnosis of PCOS is made when the hormones are seen to be unbalanced and there are no regular cycles. What can also help with the diagnosis is ultrasound evidence of cysts on the ovaries, although this is not strictly necessary.

Premenstrual syndrome

Premenstrual syndrome occurs in up to 75% of women in the childbearing age group. Up to 10% of them have it very severely, causing major effects on their quality of life and productivity. Theories as to the causes include imbalances of vitamins and hormones or brain chemistry.

But what is not theory is that the symptoms can be disabling. These include breast swelling and tenderness, abdominal bloating, weight gain, mood swings, depression, anxiety, rashes, food cravings, headache, migraine and inability to concentrate or function properly.

In fact, premenstrual dysphoric disorder is a severe form of premenstrual syndrome, which includes severe psychological symptoms.

Those at most risk of PMS are those with painful periods, high stress, or a personal or family history of mental illness, depression or anxiety. In my opinion, stress makes it worse because it further unbalances hormones and increases vitamin deficiencies in the brain.

Lifestyle changes to help sufferers

In common with the other conditions mentioned so far, lifestyle changes such as exercise, diet and regular sleep can be extremely beneficial, as can stress reduction and relaxation exercises. Specific to PMS, nutritional supplements that can be helpful include evening primrose oil, Vitamin B₆, Vitamin E, calcium and magnesium. Herbs such as St Johns wort can be effective and drugs like Prozac or the pill can be helpful as well.

The conditions discussed above share common themes.

The typical Western diet with many processed grains, starches and sugars stimulate insulin resistance, especially for people with acne, PCOS, inability to lose weight and metabolic syndrome. The ideal diet is one that avoids sugar, starches and processed foods.

Look at an Asian teenager. You can tell by their appearance if they are eating a Western diet or a traditional Asian diet – the one eating a traditional Asian diet has no acne.

The excessive sugars and starches in the diet create inflammation in the body, which then causes inflammation in the skin. The inflammation in the body causes polycystic ovary syndrome to get worse, and also causes more fat gain around the waist.

Hormone imbalances in adult women

Hormone imbalances are behind all of the above conditions in adult women. The main hormone that needs attention is progesterone. A deficiency of progesterone relative to oestrogen can be present from teenage years. Typically what this causes is premenstrual breakout of acne and premenstrual symptoms. This problem is also present in polycystic ovary syndrome and commonly in women approaching the menopause. In acne, other hormones are in play. A low glycaemic diet (one that avoids sugar and starches) helps to reduce androgen levels and correct hormones.

In many women with these problems, simple attention to getting enough sleep and exercise and a low GI diet is enough to significantly reduce their symptoms. In those that need further help, looking at hormones, particularly progesterone, can be useful. I prefer the use of bioidentical progesterone because it is the same as is in the human body. My experience has shown a high success rate with all of the conditions mentioned.

In some women where insulin resistance is a particular problem, adding in a diabetic medicine called Metformin can be very useful in helping weight loss and controlling the problem.

Programme to counter insulin resistance

Sometimes other hormones need to be looked at and corrected. My programme for helping with insulin resistance includes:

1. **Restore normal sleep.** This means being in bed and asleep by 10:30pm. If not, you miss out on the melatonin surge that occurs afterwards. Melatonin is a very important antioxidant and anti-cancer hormone that is released by the pineal gland in the very centre of the brain.
2. **Treat stress/depression.** This is because they cause inflammation in the body.
3. **Normalise/treat any imbalance of** the following:
 - Thyroid function
 - Adrenal gland function
 - Sex hormones, e.g. oestrogen to testosterone ratio (in men) and oestrogen to progesterone ratio (in women). When these are abnormal, it causes increased abdominal fat.
 - Gut flora. Detoxifying the gut with correct diet and a probiotic or other measures.
 - Vitamin B₁₂, iron, folic acid, zinc, Vitamin D.
4. **Diet.** This will initially be the ketogenic diet (no sugar or starch whatsoever) for rapid fat loss. Later it can be Mediterranean, zone diet or ABO blood group diet for maintenance.
5. **Exercise.** Aerobic exercise burns calories as well as fat. Resistance exercise such as weight training increase the insulin sensitivity of the cells as well as building muscle, which then further burns fat.
6. The addition of the following shortlist of supplements are the first choice:
 - **Omega 3 fish oil.** This reduces inflammatory messengers and molecules in the body. It also reduces all the conditions related to inflammation and increases learning and memory. Omega 3 fish oil also helps probiotics to stick in the gut lining, helping them work better.
 - **Chromium** reduces excessive appetite, cravings and depression.
 - **Probiotics** (friendly bacteria) balance the immune system which reduces inflammation. This in turn allows easier fat loss.
 - **Magnesium** is important in cellular energy production, as well as reducing insulin resistance.

7. **Metformin.** This is a drug that is very effective at reducing insulin resistance and is also used in diabetes.
8. **Alpha lipoic acid.** This is a powerful antioxidant which recycles the antioxidant vitamins in the body, and importantly can cross the blood-brain barrier. This means that it can work in the brain, so that the brain is not starved of glucose. Alpha lipoic acid helps against diabetes and insulin resistance.
9. **Testosterone** helps with energy, fat loss, libido, resilience to stress and mood. In men it reduces heart disease and is anti inflammatory as well as helping mental function. It is often low in ageing men and women.
10. **Melatonin** is a strong antioxidant substance.
11. Other herbs:
 - **Withania Somnifera** (ashwaganda) reduces inflammation and stress.
 - **Magnolia bark** reduces stress hormones and therefore inflammation.

The hormones I have mentioned here are bioidentical. These are preferred to synthetic ones to avoid side effects. The best people to ask about where to go for these in your area are your local pharmacy, or Pharmaceutical Compounding in Auckland.

Ketogenic weight loss programme

Unlike a low calorie or low-fat diet programme, this programme preserves muscle mass which is an important source of energy and other health benefits. We are not advocating excessive amounts of protein, nor are we suggesting high amounts of animal protein and fat.

The protein eaten in this programme should be of high quality.

Phase 1:

Normally lasts around two weeks, but possibly longer if necessary.

- No starch. This includes bread, pasta, potatoes, cereals, rice and root vegetables.
- No sugar. This includes fruit.
- No strenuous exercise is necessary during this phase.

An example of any meal during this phase could be:

- Protein plus vegetables and/or salad.
- Protein choices can include cheese (low fat varieties such as ricotta and cottage cheese are better), lean meat, tofu, chicken, fish.
- Snacks can include nuts, fromage frais, unsweetened yoghurt, cheese.
- The best nuts are macadamia nuts, raw almonds and walnuts.

Phase 2:

- Continue as above.
- Introduce fruit. Ensure that you have eaten all your fruit by 4pm, however.
- This could well be your maintenance diet according to your current weight or health issues.

Helpful hints:

- It is not the amount of fat that you eat, it is the *type* of fat. Plant fats such as nuts, seeds, olive oil, etc. are good for weight loss and good for your health. It is the animal fats that you need to keep to a minimum.
- Do not worry about the amount of olive oil you use on salads, as this helps to burn fat.

In a nutshell

In a nutshell, life is never simple! Hopefully you have picked up the themes I have discussed here about how the conditions of acne, PMS, hairiness, polycystic ovarian syndrome, inability to lose weight or metabolic syndrome have many similarities. With most there is a problem of hormones, and insulin resistance.

I have given you guidelines on diet and how to tackle the problem. If all else fails, suitable health practitioners who could help are naturopaths or any nurse or doctor who uses bioidentical hormones.

A useful website in relation to hormones is www.pharmaceutical.co.nz