

# Oestrogen dominance and a case of endometriosis

SEX HORMONE IMBALANCES, IN PARTICULAR OESTROGEN BALANCE, CAN MAKE SOMETHING AS SIMPLE AS EXERCISE UNCOMFORTABLE AND UNINVITING. REGISTERED NUTRITIONAL THERAPIST **CORIANDER STONE** SHARES HER USE OF THE FUNCTIONAL MODEL TO HELP A WOMAN OVERCOME THE DEBILITATING EFFECTS OF ENDOMETRIOSIS.

This is one of the most interesting and rewarding clients I have seen; not only did she present with complex and chronic functional imbalances, but she put an extraordinary amount of effort into improving and healing herself, which made working with her such a pleasure. Although she had been diagnosed with endometriosis almost ten years earlier, which had reached the final and most advanced stage IV when she came to me, within one month she was almost symptom-free and has continued to be – thanks to her hard work and perseverance.

## Endometriosis

Endometriosis is the occurrence of uterine tissue growing outside of the uterus – often in the pelvis, fallopian tubes and ovaries. As uterine tissue, it is hormonally active and responds in the same way to oestrogen and progesterone as inter-uterine tissue would, often resulting in severe pain, irregular menses, emotional disturbances and inflammation at times of ovulation and menstruation. The condition results in infertility in up to 50 per cent of women (1). There are many triggers for the onset of endometriosis, and these vary from individual to individual, but common antecedents are stress, disturbance of microflora symbiosis and diet, and the majority of cases may be due to oestrogen dominance (2).

Stage IV almost always results in infertility, and conventional treatment at this stage usually involves surgery to remove excess tissue growth.

## Presentation and diet

My 37 year-old client came to me in March 2014, recently divorced, with

a highly stressful job as a journalist responsible for a political party press department. Her menstrual cycle was highly irregular, and menses lasted up to one month at a time, with severe pelvic and back pain, coupled with overwhelming emotional instability and fatigue. She also developed acne around her chin and jaw-line at onset of ovulation and menses. She enjoyed exercise, but only managed to do intermittent bouts of cardiovascular training. She would like to have done more, but her endometriosis often caused significant discomfort during exercise. One of her goals was to increase the amount of exercise that she was capable of doing and to improve her fitness and body shape.

She had been diagnosed with endometriosis seven years earlier, although symptoms had started a couple of years prior to that. She had managed to improve her symptoms somewhat recently by cutting down on animal protein and assuming a mainly lacto-vegetarian diet, but had started to gain weight, and thus increased her animal protein to carbohydrate ratio in an effort to avoid further gain; this resulted in a deterioration of symptoms.

Her symptoms worsened with the consumption of animal protein, all dietary phytoestrogens, and mildly with gluten. She had adolescent-onset IgE allergies to profilin, which had worsened with age, so could not eat many fruits and vegetables. Those she could eat, she cooked well to reduce profilin content. She felt hungry every two hours and often ate breakfast twice. She experienced bad indigestion, bloating and abdominal discomfort after eating red meat.

She was very sensitive to cold and heat, but all thyroid testing carried

out by her GP had come back as normal; although she did not have the test results to show me, so subclinical hypothyroidism could not be ruled out. She had previously undergone surgery on three occasions to remove uterine tissue, and she was keen to avoid further surgery. Diagram 1 shows a functional matrix of symptoms, illustrating clearly exactly where the majority of her functional imbalances lay.

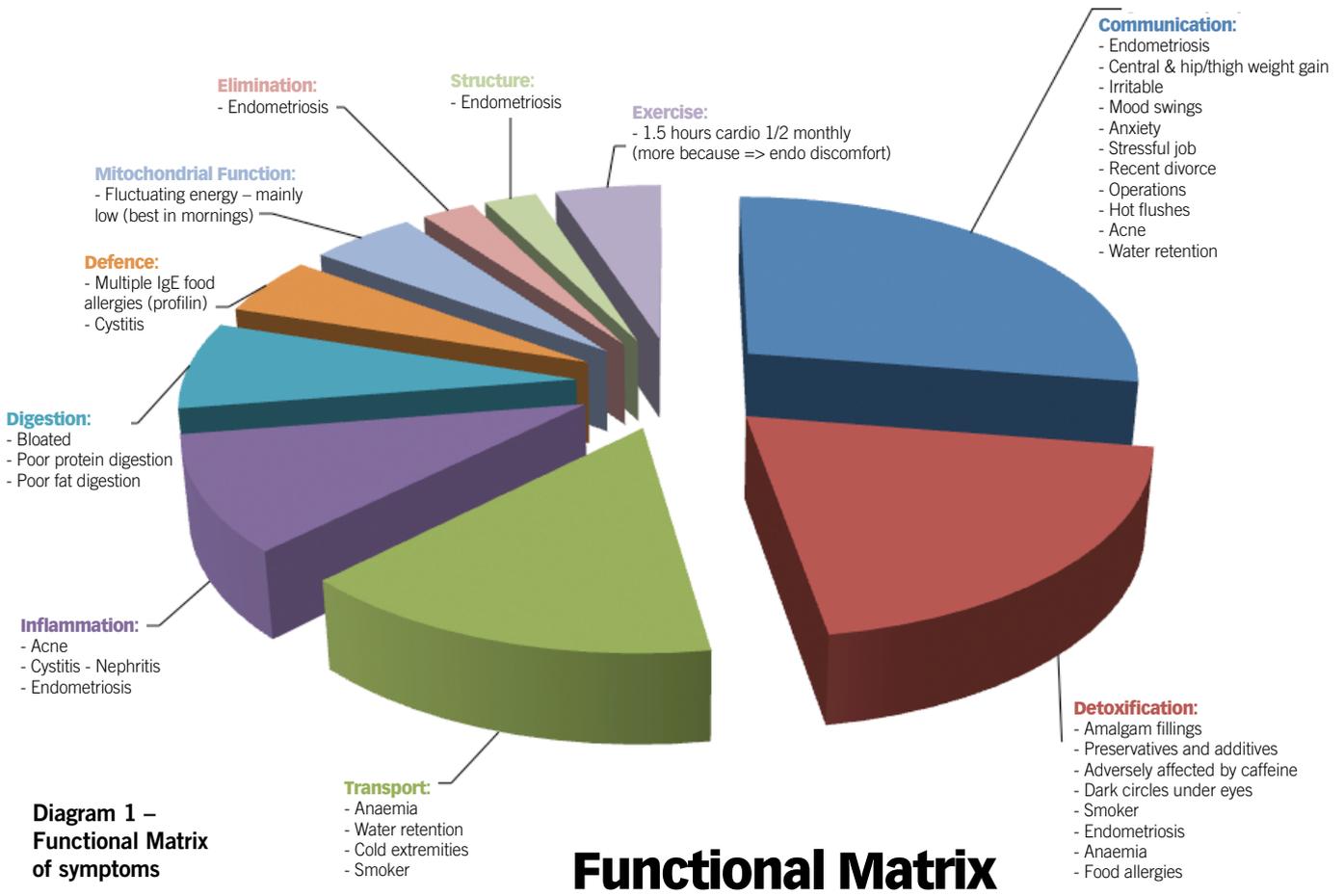
Her goals were to control both her weight and the endometriosis naturally; regulate her menstruation, improve her mood, exercise more and regain a good quality of life.

## Potential antecedents and triggers

My client had a difficult upbringing, with an alcoholic and psychologically violent father, and a bad relationship

**Table 1: Protocol**

STRATEGY	RATIONALE
EPSOM SALTS	Natural calcium channel blocker to promote relaxation (9); reduce prostaglandins associated with menstrual pain, oestrogen dominance and endometriosis (10), support liver sulphation pathway and ↑ glutathione.
HCL AND PEPSIN	Improve digestion and protein breakdown.
PROBIOTICS	Restore symbiosis and reduce beta-glucuronidase.
LIQUID MULTI-VITAMIN WITH PLANT-DERIVED ANTIOXIDANTS	B vitamins necessary for progesterone production and methylation and excretion of oestrogen in the liver plus antioxidants to combat oxidative stress found in endometriosis [11].
CALCIUM-D-GLUCARATE	Hepatic detoxification support for the glucuronidation pathway, increasing elimination of oestrogens and other environmental toxins
NAC ENHANCED ANTIOXIDANT FORMULA	Specific glutathione production support for endometriosis-related oxidative stress.
OMEGA-3	Low levels are associated with elevated prostaglandin production, and research shows that supplementing with omega 3 reduces endometrial tissue [12].
YOGA	Reduce stress, stimulate parasympathetic nervous system.



**Diagram 1 – Functional Matrix of symptoms**

# Functional Matrix

**Table 2: Typical diet prior to consultation Mar 2014**

TYPICAL WEEKDAY	TIME
<b>BREAKFAST</b> Decaffeinated coffee with rice milk, 125ml yoghurt with linseeds, rye bread with marmalade	7.30/8.15
<b>LUNCH</b> Creamed spinach, grilled tuna fillet, 1 slice bread	14h30
<b>DINNER</b> Vegetable soup and 2 fillets seitan (“gluten meat”)	21h
<b>SNACKS</b> Mini vegetable sandwich, yoghurt	11h/19h
<b>DRINKS</b> 2 litres water, coffee with milk	

**Table 3: Typical diet after implementation of protocol Apr 2014**

TYPICAL WEEKDAY	TIME
<b>BREAKFAST</b> Matcha green tea, goats’ milk kefir with puffed quinoa and millet, pear	7.30/8.15
<b>LUNCH</b> Organic salmon with millet and mixed veg	14h30
<b>DINNER</b> Quinoa tabbouleh with roast pumpkin, mushrooms and coconut oil	21h
<b>SNACKS</b> Gluten-free toast with avocado, green smoothie	11h/19h
<b>DRINKS</b> Green tea, filtered water	

with him. She described herself as “treading on eggshells and unable to be myself around him”, changing her personality around him so as not to upset him. There was no effort to hide either the marital problems or alcoholism from the children, and her childhood was, in her own words, very stressful. Menstruation started at 14 years old and she experienced regular 28 day cycles until the onset of endometriosis fifteen years later. She estimated that she had had antibiotics about once a year as a child, and also recalled gastrointestinal symptoms and chronic constipation. Tests were carried out, but nothing out of the ordinary discovered.

At 28, she met her husband and had a very difficult marriage, which she was relieved to have had recently escaped from – she did not elaborate further. At 29, she was hospitalised for a week with a bad bout of salmonella poisoning, which was treated with antibiotics over a two-three week period. Almost immediately after this, her menstruation became excessively painful, and she was prescribed the contraceptive pill, which she used for one year with bad emotional side-effects.

After alleviation of symptoms, she then developed nephritis for which she was prescribed antibiotics. She described a drastic worsening of endometrial symptoms after this incident. Certainly, stress and interruption of natural symbiosis within the

gut seemed to be most relevant to onset of this client’s disease.

## Protocol and rationale

As phytoestrogens had such a negative impact on my client, yet she could not eat much animal protein either, putting together a food plan with a high enough protein:carb ratio to keep her satiated was a challenge. She could not tolerate any seeds or legumes and was allergic to nuts, plus I wanted to eliminate gluten and note symptoms when she reintroduced it later.

She displayed clear signs of oestrogen dominance, which was probably due to various pathway imbalances, and seemed not to be eliminating exogenous toxins such as hormones from animal produce effectively either.

### Stress, digestion and microflora mechanisms:

- Potential pregnenolone steal from chronic stress → oestrogen dominance (3).
- Elevated insulin → low SHBG (4) → reduced capacity to eliminate recycled oestrogen → oestrogen dominance.
- Chronic stress → low stomach HCl levels → poor protein digestion → ↑ immune response and ↑ allergies (5).
- Chronic stress → decreased immunity (6) → reduced capacity to eliminate misplaced uterine tissue → ↑ endometriosis (7).
- Poor digestive capacity/antibiotic use

→ microflora dysbiosis (8) → beta-glucuronidase → oestrogen dominance (3).

**Liver mechanisms:**

- ↑ stress → ↑ steroid hormone breakdown → compromised liver function → ↓ capacity to eliminate oestrogens → oestrogen dominance.
- ↓ exercise → additional toxin build-up.
- Poor liver function and consumption of non-organic produce → build-up of exogenous toxins and oestrogens.

With these functional imbalances in mind, we put the following protocol into place. Table 1 shows the supplement (and lifestyle) recommendations, Table 2 her diet previous to her first consultation, and Table 3 her diet after implementing the protocol.

**Dietary Principles:**

- Only organic produce wherever possible – especially animal products.
- Eliminate cow's dairy.
- Eliminate gluten.
- Eliminate all phytoestrogens including legumes, citrus and wheat.
- Balance blood sugar levels with protein in every snack or meal.
- Increase vegetables, including sulphur-rich.

**Moving forward; results**

After just a couple of weeks, my client had noticed a vast improvement in symptoms – particularly the mood swings and anxiety, which were so pronounced around ovulation and up until onset of menses, and which were her most problematic symptom. By the end of April, one month after seeing me for the first time, she was almost symptom-free and her cycle had regulated to 28 days with a five day bleed. It was local election time and she was under more stress than usual at work, but whereas normally this would have caused a surge in emotional symptoms, she

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**Table 4: Impact of imbalances before consultation 12 Mar 2014**

HEALTH ISSUE	IMPACT ON LIFE (0-6)	MANAGEMENT SO FAR	DURATION OF HEALTH ISSUE (FROM-TO)
1 Endometriosis	6	Traditional medicine, surgery, homeopathy, diet, exercise	2008 – present
2 Anaemia	3	Tardyferon & diet	February 2014 – present
3 Allergies	4	Traditional medicine, meditation, antihistamines	1994 – present
4 Fatigue	6	Diet rich in iron, fruits & vegetables	Past couple of months

**Table 5: Impact of imbalances after implementing protocol 23 Jun 2014**

HEALTH ISSUE	IMPACT ON LIFE (0-6)	MANAGEMENT SO FAR	DURATION OF HEALTH ISSUE (FROM-TO)
1 Endometriosis	2	Diet & supplements	2008 – present
2 Anaemia	–	Has not repeated test but no symptoms	–
3 Allergies	2	Diet & supplements	–
4 Fatigue	0	Diet & supplements	–

felt in control and able to cope with anything. Her fatigue had completely disappeared too, as can be seen in Tables 4 and 5.

Soon after starting the probiotics, she became constipated. I believed this to be excessive drainage syndrome from competing bacterial colonies, and I therefore recommended she reduce the dose of probiotics, increase her soluble fibre intake and ensure she was getting two to three litres of liquids per day. After four days, symptoms disappeared and she was able to increase the dose once more with no further issues.

In July, she was prescribed a course of antibiotics and the effect was instant: her cycles reduced to two weeks in length for three cycles, and she had severe pain and bloating. I recommended a course of higher-dose probiotics than her usual ones and symptoms resolved.

She has recently started doing yoga twice a week, and has noticed that her acne and other oestrogen dominant symptoms are diminishing in coincidence with this. Yoga has a powerful effect on the parasympathetic nervous system, helping to restore and replenish the adrenal glands, reducing detrimental effects of stress and diminishing the oestrogen-dominant imbalances.

My client also made the recent decision to stop smoking and is so far doing well with this too. She has achieved her goals of combining weight loss with controlling the endometriosis, having lost four kilos

since following the protocol and of being able to exercise on a more regular basis, having increased her cardiovascular training to 1.5 hours per week. With yoga, she has discovered the benefits of a completely different type of exercise alongside the cardio. By combining the two exercise types she is able to do more and gain increased benefits. While she does still experience some pain on the second day of menstruation, she feels like a ‘normal’ woman now, whose life is no longer controlled by a debilitating disease. **FSN**



**About the author**

**Coriander Stone**, BSc (Hons), is a registered nutritional therapist, trained in the functional medicine approach, graduating from CNELM with a first class degree. She has experience researching personalised nutrition protocols and working one-to-one with clients with a wide range of health imbalances in a clinical setting. She set up a successful practice in Madrid, where she also worked as the in-house, nutritional therapist for a physiotherapy and fitness studio and gave a series of workshops to the general public and schools in the area. She has now moved her practice to Bath, where she continues to see clients and also works as a freelance nutritional journalist.

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