Treatment Plan for SHARNA BROOKES
Date : 25.10.24

Patient Health Priorities : Reduce symptoms of PCOS. Regulate ovulation/menstrual cycle.

Short term

- Improve insulin sensitivity (fasting insulin less than 8mU/L) through herbal medicine, nutritional supplementation dietary and lifestyle strategies
- Regulate ovulation to normalise menstrual cycle length by improving insulin sensitivity, hormone clearance (liver and bowel) and reducing androgen levels using herbal medicine, nutritional supplementation and dietary strategies
- Improve constipation by increasing stool frequency to at least once daily using dietary strategies and herbal medicine
- Support healthy conception and pregnancy by improving nutrient status, including iron and folate, through nutritional supplementation and dietary strategies
- Reduce gastrointestinal bloating and gas through investigation and treatment of GIT system
- Reduce the risk of miscarriage through investigation of vaginal microbiome to prevent UTIs

Long Term

- Support healthy ovulation and menstrual cycle
- Improve gastrointestinal function
- Support healthy conception and pregnancy

Nutrition Overview for SHARNA BROOKES
Date : 25.10.24

Include the following foods...		Target
Energy Intake		11,000 kJ/day
Fibre	**Soluble fibre** - fruit and vegetables, barley, seed husks, flaxseed, psyllium, oat bran, legumes (lentils, peas, dried beans, soy) **Insoluble fibre** - wheat bran, corn, rive, skins and fruit and vegetables, dried teas, nuts, seeds, wholegrain foods **Resistant starch** - unripe banana, lentils, unprocessed cereals and grains, cooked and cooled potato and rice	30g/day
Water		2L/day
Protein	**Optimal sources** - poultry (chicken, turkey, duck), seafood, eggs, lean meats **Plant sources** - quinoa, chickpeas, lentils, nuts, seeds, peas, beans, tempeh, hemp seeds, hemp protein powder **Limit** - dairy, red meat, processed meats (bacon, sausages, deli meats)	30g/meal
Spearmint Tea	Organic is best	1 cup, twice daily (days 1-14)

Eliminate or limit the following foods...	
Sugar	Reduce as much as possible - Soft drink, juice, lollies, ice cream, honey, some breakfast cereals
Dairy	Eliminate temporarily - Milk, cheese, yoghurt, cream, ice cream etc (A1 dairy is ok)
Artificial sweeteners	Avoid - Aspartame, acesulfame postassium, Equal, Nutrasweet, sucralose, phenlalanine, Saccharin, Splenda, sorbitol Soft drinks with "Zero" "Max" "Diet" or "Sugarfree"

Track your intake using the Easy Diet Diary app (free download)

Prescription Overview for SHARNA BROOKES
Date : 25.10.24

PRESCRIPTION	Breakfast	Lunch	Dinner	Bedtime
Herbal Tonic	5mL after food	5mL after food	5mL after food	
Nutrient Compound	1.5 teaspoons with food		1.5 teaspoons with food	
Boheme Iron			1 Mon Wed Fri	
Bioceuticals in Natal	1	1		
PHGG				2 teaspoons in water

Herbal and nutrient prescriptions are individualised to your own health factors. They should only be taken by the person they are prescribed for. Please advise your naturopath if you commence a new pharmaceutical medication as this may change your herbal/nutrient prescription.

Other reminders:

- **Cease herbal medicine and nutritional compound immediately if pregnancy is suspected**
- Include weight resistance exercises a few times per week
- Meal prepping on Sundays to plan lunches for the week (prioritising protein and fibre)
- Esky in the car to carry lunches and water on work days
- Order and complete vaginal microbiome testing

Testing Recommendations

- **Complete Microbiome Gastrointestinal Mapping ($569)** - To investigate gut function, short chain fatty acid production, H. pylori, autoimmune tiggers, pathogenic bacteria, commensal bacteria, opportunistic pathogens, fungi, viruses, and parasites.

Detailed goals and rationale for SHARNA BROOKES
Date : 25.10.24

HEALTH GOAL	RATIONALE & INFO	DOSE
Herbal Prescription	Improve hormone detoxification to reduce excess androgens using hepatoprotective, cholagogue and choleric herbs Improve constipation by increasing bile production and flow using cholagogue and choleric herbs Improve fertility by regulating ovulation through reducing ovarian testosterone production via inhibition of 17bOHSD (converts androstenedione to testosterone) using adrenal tonics and hormone regulating herbs Increase blood supply to gastrointestinal mucosa to increase mucous production to protect gastric mucosa using mucoprotective and demulcent herbs Reduce pain by reducing inflammation through inhibition of NK-*k*b using anti inflammatory herbs Enhance insulin sensitivity to improve insulin resistance and PCOS using hypoglycaemic herbs *Cynara scolymus*, *Schisandra chinensis*, *Glycyrrhiza glabra*, *Paeonia lateriflora*, *Zingiber officinale*, *Gymnema sylvestre*	**Take 5mL three times per day AFTER MEALS**
Nutrient Compound	Improve intracellular messaging between hormones (insulin, FSH, TSH) Reduce androgens through increase in SHBG to promote healthy ovulation Enable normal cell response to insulin to improve insulin sensitivity Inositol, Magnesium citrate, Magnesium glycinate, *Brassica oleracea*, l-glutamine, *Curcuma longa*, l-glycine, taurine, choline bitartrate, inositol, cysteine, potassium, l-methionine	**Take 5g (1.5 teaspoons) twice daily (in water) with food**

Increase fibre to 30g per day to improve blood glucose levels, increase bowel frequency and improve elimination of excess hormones	• Balance gut microbiome to support immunity, support neurotransmitter production and reduce inflammation • Improve bowel function and hormone metabolism – excess hormones are bound to fibre and excreted during bowel movements • improves satiety which help with weight loss, also bind fats and lowers absorption of glucose through delaying gastric emptying • Soluble fibre reduces cholesterol reabsorption, improves hormone elimination and improves satiety, improves faeces bulk • Insoluble fibre bulks faeces, improves constipation and speeds up digestion • Resistant starch improves microbiome health to produce short chain fatty acids, which may protect against colon cancer and lower cholesterol levels Research – https://www.mdpi.com/2072-6643/12/3/859/htm **Optimise dietary fibre** • *Soluble fibre – fruit and vegetables, barley, seed husks, flaxseed, psyllium, oat bran, legumes (lentils, peas, dried beans, soy)* • *Insoluble fibre – wheat bran, corn, rive, skins and fruit and vegetables, dried teas, nuts, seeds, wholegrain foods* • *Resistant starch – unripe banana, lentils, unprocessed cereals and grains, cooked and cooled potato and rice* https://www.eatforhealth.gov.au/nutrient-reference-values/nutrients/dietary-fibre	**Aim for 30g per day from a variety of sources of fruit, vegetables legumes, seeds and wholegrain.** *Increase fibre intake gradually to avoid gastrointestinal side effects.* *Track your intake using the Easy Diet Diary app (free download).*

Increase water intake to 2L per day to support bowel function, improve hormone elimination and reduce the risk of UTIs	Improve bowel function by increasing water intake to normalise stool consistency and transit times (which will improve cholesterol and hormone elimination) Proper hydration helps dilute urine and flush out toxins and waste products from the body, including the prostate, potentially reducing risk of infections and supporting kidney function to reduce the workload of the prostate. **This is particularly important when increasing fibre in the diet. Fibre increases without adequate water intake may lead to constipation**	**2L per day**
30g of protein with each meal to help regulate blood glucose levels	Protein supports hormone and neurotransmitter synthesis, and the growth of new tissue. It is crucial to maintain muscle mass. It can mitigate muscle mass losses and muscle function losses associated with sarcopenia. Optimal protein in take may help to improve energy balance due to it's slow energy release, which can help to regulate blood glucose levels. **Optimise dietary sources of protein** *Complete protein sources* : lean meat, fish, seafood, eggs, dairy products, soy, quinoa, amaranth seeds *Plant sources* : seeds, nuts, legumes (lentils, beans, chickpeas, split peas), whole grain, tofus **Minimum Target:** FEMALE : Include 0.75g of protein per kilo of body weight per day **Optimal intake:** 1.3 - 1.8g of protein per kilo of body weight per day FEMALE : 88-120g per day Evidence : https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6566799/ https://doi.org/10.1093/ajcn/78.4.734	Aim for 30g per meal Hemp Foods Organic Hemp Gold Protein Add to smoothies or use to make chia seed puddings. Available from Oborne Health Supplies Track intake using the Easy Diet Diary app.

Reduce sugar intake to reduce inflammation and improve blood glucose levels	Reduce sugar - the high-dose fructose you get from desserts, honey, fruit juice, and dried fruit. There is no need to reduce fruit, as the fructose in fruit is lower dose and whole fruit contains fibre to slow the spike in blood sugar from fruit.	
Reduce inflammation and hormone (androgen) precursors by eliminating dairy	Dairy contains insulin-like growth factor 1 (IGF-1) which increases sebum production leading to increased severity of acne. Substitutes: coconut yoghurt (CocoBella have some delicious flavours) frozen banana blended in a thermomix or food processor is a great ice cream substitute. sheep and goat cheeses are ok Try almond milk (I recommend Pure Harvest Organic Almond Unsweetened) A2 milk can be used when if absolutely necessary Research: https://pubmed.ncbi.nlm.nih.gov/15781674/	**Eliminate to 0 serves per day for the next 12 weeks then reassess**
Include weight resistance exercise to reduce androgens	Androgens are used for metabolic growth, building and repair. Weight-bearing exercise can improve insulin sensitivity, helping to regulate hormone production. When insulin is better utilized, the body produces fewer androgens	
Spearmint Tea to reduce androgens	Spearmint tea has been shown to decrease free testosterone. Research: https://pubmed.ncbi.nlm.nih.gov/19585478/	**1 cup twice per day during follicular phase (days 1-14)**
Eliminate sources of artificial sweeteners to improve insulin sensitivity	Consumption of nonnutritive sweeteners was associated with increases in weight and waist circumference, and higher incidence of obesity, hypertension, metabolic syndrome, type 2 diabetes and cardiovascular events. The World Health Organisation recommends non nutritive sweeteners not be used as a means of achieving weight control or reducing the risk of noncommunicable diseases Research: https://www.cmaj.ca/content/189/28/E929 https://www.who.int/publications/i/item/9789240073616	

Improve iron status through iron supplementation	Improve production of healthy red blood cells, in the formation of haemoglobin, and in oxygen transport within the body by correcting iron deficiency Improve immune function through increasing iron availability for macrophage activity and T lymphocyte proliferation Improve energy levels by supporting ATP production Improve thyroid hormone synthesis Research : www.Ncbi.nlm.nih.gov/pmc/articles/PMC9219084/ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7193469/ Take iron either upon waking or before bed, at the same time every second day, with a vitamin C supplement. Take 6 hours away from heavy exercise. Avoid supplements containing zinc, selenium or calcium at the same time. Avoid tea, coffee, dairy and soy protein at time of taking iron.	**Prescribed : BioMedica Bioheme 30 capsules** **Take 1 capsule every second day** ***** Place a calender on your fridge and mark it each time you take a capsule OR take your iron on Monday Wednesday Friday if it's easier to remember *****
Improve iron status through dietary strategies	Optimise iron rich foods to improve iron status Haem iron sources : meat (beef, lamb, pork, kangaroo), poultry (chicken, turkey, eggs), seafood (salmon, sardines, tuna) and organ meats (liver, kidney, pate) Non-haem sources : ;legumes (mixed beans, lentils, chickpeas), dark green leafy vegetables (spinach, silver beet, broccoli), tofu, nuts, seeds, dried fruit, wholemeal pasta and bread Recommended Daily Intakes Female 19-50 years : 18mg/day Female 51 years and older : 8mg/day https://www.nrv.gov.au/resources/nrv-summary-tables	

Include PHGG daily	PHGG use accelerates colon transit time in patients with chronic constipation, especially in those with slow transit, and improves many of their symptoms including frequency of bowel movements. PHGG Has a positive impact on the growth of beneficial microflora (Bifidobacteria, Lactobacilli and Bacteroides) and subsequently, the production of acetate, proprionate and butyrate. Please note: When increasing fibre intake bloating, flatulence or mild gastrointestinal distress may occur. Introducing fibre slowly and an increase in water consumption can help alleviate potential undesirable effects. Research: https://pubmed.ncbi.nlm.nih.gov/24711073/ https://www.sciencedirect.com/science/article/abs/pii/S1756464617301457	**2 teaspoons daily mixed in water** *Start with 1/4 of a teaspoon and increase a bit each day until 2 teaspoons*
Complete vaginal microbiome test	PCR analysis of vaginal beneficial bacteria, opportunistic/commensal bacteria, yeasts, STI's and pH. (As recurrent UTI's can be caused by vaginal bacteria (including E. Coli). Recurrent UTIs increase adverse pregnancy outcomes)	**Complete and send to Nutripath as soon as possible**