

The following is a treatment plan developed by the late Martin Friedel from Australia. Unfortunately, Martin passed away from COVID-19 in 2021, but not from his **prostate cancer**. These are his words.

In 2013, I was diagnosed with aggressive inoperable PC stage 3/4; Gleason 5+4; PSA 132. The oncologists expected metastasis, but this wasn't detected, and so far, scans have failed to detect metastasis. However, the tumour is still in the prostate and apart from mild urinary symptoms - treatable with Flomax. I remain healthy, my current PSA is still around 130-140. I do a PSA test every 2/3 months and see oncologist every 6 months. I'm 73yo, 192 cm 85 Kg.

In 2013 when first diagnosed I moved to a low carb diet and fasted - water only- for 3.5 days every 3- 4 weeks (It takes about 2 days for glycogen in the liver to be depleted so 3.5 days is about the minimum time required to get benefits).

After becoming aware of Prof Seyfried's work and writing to him I started the Restricted Ketogenic Diet (KD-R). Basically, I eat as few carbs < 12 gm/day if possible. Moderate Protein 0.6 gm/kilo body weight). I'm 85 kg so that's < 60 gm protein a day, which translates to less than 300 gm meat /fish.

I tend to eat meat or fish no more than once or twice a week. But there are a lot of plant-based protein sources; flaxseed, almonds avocado high protein products derived from pulsars & soy.

I eat lots of leafy greens, lo carb nuts, low carb veggies (smaller quantity) - mainly brassicas, absolutely no sugar, bread, potatoes, rice, pasta etc.

I eat high fibre - flaxseed meal, psyllium husk.

I eat fresh, but if I buy packaged food, I check labels for sugar and carbs and avoid those with higher than 3 to 4%. For fats, I use butter, olive oil, coconut oil I find that MCT oil helps elevate ketone levels quickly thereby also lowering glucose. MCT also gives quicker energy for exercise. It took me a quite a while to become "fat adapted" & take a high fat diet without digestive issues. But it's all settled down ok.

No Milk, very little cheese.

No fruit - except very low sugar - raspberries/blueberries - a few, quince, rhubarb. Stevia as a sweetener.

I eat during a 3 - 4 hour window each day, currently 3 pm to 6.30 pm. Then nothing until the following morning. The rest of the day I don't eat - well maybe a couple of olives (0 carb) and a walnut or so.

I do have an occasional glass of dry red or white wine. Alcohol in fact seems to lower my glucose. No beer, as it is carb rich.

I exercise each day - gym, weights & swimming, walking, and bike riding.

At the early stages of the diet, I kept detailed eating records - and calculated calories. I'm now on about 1500 cal day -down from over 2000 before cancer.

Energy levels are good.

Perseverance, strictness i.e., every day. It's an anti-social diet, boredom and old eating habits are biggest obstacles. I live in a household of normal eaters and this can be hard. Going to restaurants is tricky but, hey these are first world problems. A few times a year, birthdays etc. I eat more or less normally; I sometimes follow these occasions by a short fast to re-establish ketosis quickly. With the keto diet alone, it can take 5 days to get back into ketosis.

I take 2000 mg /day metformin. This depresses glucose 'spikes' and reduces gluconeogenesis. I don't have diabetes. I also take low dose aspirin (100 mg) daily and fish-oil tab for Omega 3 plus multi vitamin/mineral to cover all bases. Also, Coenzyme Q10 and NT Factor to boost mitochondrial function; I find this elevates energy levels. I try to incorporate other things in the diet, green tea cinnamon. But that's about it.

I measure blood ketones and glucose daily. Ketones 2-4 mm/L, Glucose around 3.8 to 4.0, although with a bit of effort I can achieve a glucose ketone index (GKI) of less than 1.0, which is considered very good.

My health - Blood pressure, cholesterol profile, weight, fitness have all improved since I've been on the diet. A surprise is that my dental health has improved. No Sugar!. I haven't needed a filling for 6 years.

I also combine the diet with periods of water-only fasting. I started with 72 hours and as I've got used to it, I try for 120 hours. Currently I do one 120-hour water fast every 4 - 5 weeks. It sounds tough, and at first it is, but one gets used to it. I keep busy with exercise, dog walks.

Real weight loss is surprisingly low; about 1.5 kg and easily made up - initially its more, but most of that is water loss. There's a noticeable temporary improvement in urinary symptoms which lasts 7 -10 days.

There's also some interesting work being done by Valter Longo. His approach is a bit different from Seyfried's but it is in the same ballpark. He's just brought out a book called The Longevity Diet and this also discusses cancer and diet. Well worth buying.

In my case, as evidenced by stable average PSA, it seems the cancer is being "managed". Should it move, I still have 'standard treatment' to go to. There is good evidence that KD-R in conjunction with chemo or radiotherapy increases their effectiveness and reduces side effects. This would be considered a hybrid treatment plan combining both metabolic therapy & SOC.

Personally, I think that it will be a long while before there's a magic bullet for managing prostate cancer. I go to one of the best cancer hospitals in Australia, but I haven't seen any change in standard treatment options, in side effects, or in survival rates. Metabolic Therapy is starting to arouse a bit of interest but given how conservative clinicians are it will be a while before it's applied. I take Thomas Seyfried's book and copies of the latest

papers to show to my GP and oncologists. They continue to be astonished that metastasis hasn't occurred.

I have tried hyperbaric oxygen therapy (HBOT). In 2015, I did 7 x 2 hour sessions at 2 atmospheres pressure for over 2 weeks. It brought my PSA down around 20%. However, the drop was temporary. Within a few weeks, PSA was back up to the average level. Also, HBOT is quite expensive, so I'm reserving it for when PSA rises. From my own observation of PSA, & urinary symptoms I suspect that the tumour in the prostate is well protected by its own system of blood vessels, so fairly resistant to MT & short -term interventions such as HBOT and fasting. It's the cancer cells that break out which are more vulnerable to MT and fasting etc. So, in my case, it may be that metastasis - which is the killer, can be avoided – So, if my PCa can be managed by the diet, that is what I'll do - boring though it is. After more than 6 years, I now see my PCa as a nuisance condition to be managed, rather than a deadly illness.

Hope this helps

Let me know if there's more detail you want.

Best Wishes and good luck

Martin Friedel