

Gerson Therapy

Introduction

The Gerson therapy uses a special diet, supplements and also coffee enemas to detoxify and stimulate the body's metabolism. Proponents of the Gerson therapy have made claims that it is an effective treatment for cancer and other illnesses, through balancing the levels of potassium and sodium in the body, removal of toxins and regeneration of liver function and also improving overall nutritional status. No substantive evidence exists in the scientific literature to support the view that the Gerson therapy is an effective alternative therapy for cancer. However, some evidence does exist which suggests that elements of the therapy (coffee enemas in particular) are potentially dangerous if used excessively. In addition to this the excessive demands of time, money and other resources on the patient undergoing the therapy may be extreme.

What is the Gerson diet?

Originally devised by Dr. Max Gerson (a German doctor 1881-1959), the Gerson approach is now headed by his daughter Charlotte Gerson, who now leads the Gerson Institute in the United States (US). The Gerson Institute is linked to the "Baja Nutri Care Clinic" in Tijuana, Mexico, which is licensed to practice the therapy. The Gerson therapy is unlicensed in the UK ¹. The intensive treatment, based on nutrition and detoxification, is thought to restore and revitalise the body, strengthen the immune, enzyme and hormone systems and correct the function of the essential organs. The Gerson therapy is not targeted at any one specific symptom or disease, instead it is thought to treat the underlying cause of the disease, therefore restoring health to the whole body. By supplying nutrients that are claimed to be "easily absorbed" and utilized by the body it is thought that this provides the optimum conditions for healing. After restoring the body with "hypernutrition" it is thought that excess sodium and toxins (due to previous poor nutrition and exposure to environmental pollution) are released. With the release of toxins into the system it is thought necessary to support the liver in removing these damaging by-products. This is achieved by administering coffee enemas, as these are thought to stimulate the toxin-removal activity of the bile ducts, liver, and bowel. A variety of medication and supplements may be administered on the Gerson regime, making this therapy highly complex. Such medication includes: potassium supplements, Lugol's solution (an inorganic solution of iodine with potassium iodide), thyroid hormone, injectable crude liver extract, vitamin B12, Coenzyme Q10, niacin, pancreatic enzymes, Laetrile, clay packs, castor oil enemas, "live-cell therapy", glucose, hydrogen peroxide and ozone treatment.

Importantly, the Gerson therapy is an alternative therapy, it does not encourage the use of chemotherapy alongside its regime. This is because it is believed that those undergoing chemotherapy prior to Gerson therapy have an immunological disadvantage. The use of radiotherapy is considered more compatible with Gerson therapy².

It is estimated that the treatment at the clinic costs approximately \$5,500 per week and usually lasts around three weeks, after which the therapy is continued at home for on average 18 months³. The weekly fee for the stay at the clinic pays for medications, meals, tests and treatment, with the addition of a companion's lodging. With the additional cost of the airfare to Mexico and its associated fatigue⁴, a visit to the Gerson clinic is expensive and demanding. Continuing the therapy at home may also tap many of the patients' resources. To support their progress, every six weeks telephone consultations with the physicians in Mexico are available at the price of \$50 for half an hour. However, it is estimated that only 25% patients do this⁵. Medication for the Gerson diet costs approximately \$500 a month, and the specialist Norwalk juicer required is thought to cost \$1,000 minimum second-hand⁶ and \$2,000 minimum new⁷. Other costs include: buying organic coffee (specific to the therapy), thyroid supplements, flax oil, special rye-bread, water distillers, ozone machines, non-toxic house goods. It is estimated that 12 to 16 hours a day will be taken up by shopping, preparing food and medication and cleaning the juicer. Juices cannot be made ahead of time as it is thought necessary to drink the juices as fresh as possible. The Gerson Institute advises that a patient follows the Gerson regime for about 18 months at home to rid the body of cancer¹, a patient will therefore need to hire a helper to maintain their needs for some considerable time. About 100 pounds (convert to kgs) of fruit and vegetables are needed each week. If organic vegetables are difficult to obtain in the area the patient lives this may further add to the price of the therapy⁸. In total the Gerson therapy consumes large amounts of time, money and other resources and only dedicated individuals will be able to stick to the demands of the therapy.

Until recently, the only medical facility licensed by the Gerson Institute was the Baja Nutri Care Clinic, located in the Playas area of Tijuana, Mexico (currently there is no medical facility linked to the Gerson Institute)¹. Treatment in the Baja Nutri Care Clinic is administered and overseen by two physicians (Dr. Melendez and Dr. Bravo). Charlotte Gerson and the Gerson Institute staff visit the clinic on a regular basis. The Gerson Institute supplies support and advice to anyone wishing to carry out the therapy at home.

According to one independent, outside (but now rather old) report the Gerson clinic in Mexico treats approximately 600 patients a year⁵. Only estimates can be obtained in terms of numbers of people following the therapy worldwide, and an overall figure of 1,000 people has been suggested⁹. The Gerson Institute itself is not able to provide figures for patients worldwide³. The following information was obtained from the Gerson Institute's website¹: The Mexican clinic is the only licensed Gerson treatment centre in the world. The treatment is unlicensed in the US. The Gerson Institute recommends a list of medical professionals that have been to Mexico for Gerson training, there are four practitioners in the US, two in Canada, three in Australia, and one in Holland, Korea and the UK. The Gerson Institute also provides contact details of support groups run by long-term recovered patients. These groups provide networks for obtaining Gerson equipment and supplies and also provide advice and usually publish a newsletter (there are four groups in the US, two in Australia and one in Canada, and the UK). The Gerson Institute publishes its own newsletter and also provides a "Gerson support service" which facilitates the development of other support group networks. For US patients there are contact details of Gerson-trained caregivers and home set-up co-ordinators who facilitate the therapy when practiced at home. The Gerson Institute offers a list of "Recovered Patient Referrals" to prospective new patients. This list details the testimonials of 150 people who have found

the Gerson therapy beneficial to them. Lastly, to publicise the therapy as much as possible, Charlotte Gerson tours the world lecturing and providing workshops with patients and health care professionals. Further details of the Gerson network are set out on their website.

How well does the Gerson diet work?

Overall, the treatment has not been found to be effective as a cure for cancer. However, attempts to evaluate the Gerson therapy as a whole are problematic due to the complexity of the treatment, time taken for its possible effectiveness and poor record keeping/tracking of previous patients by the Gerson Institute⁵. One study conducted in 1983 did manage to track 21 patients over a five-year period, finding all but one (who was not cancer free) to be dead at the end of the study period¹⁰. However, due to not obtaining detailed medical records at the start of this study this research is not very substantive.

Since the 1940s several attempts have been made to assess the efficacy of the Gerson therapy. In 1947 the NCI (National Cancer Institute) received case studies of ten people from Gerson. The NCI reviewed the data and found no evidence to support Gerson's claims of the therapy being effective¹¹. The 50 cases presented in Gerson's 1958 book¹² were also reviewed by the NCI in 1959, however, it was concluded that the case histories were not presented in sufficient detail (for instance, verification of the tumour, previous treatment history) to be able to evaluate the clinical benefit of the therapy¹³.

In 1989, Reed et al. visited the Gerson clinic to evaluate the efficacy of the therapy on behalf of a British medical insurance company¹⁴. Two investigations were conducted and presented in one paper. The first investigation concerned how patients responded to the therapy and the other was a psychological study of the patients at the clinic. For the first investigation, the Gerson clinic presented 149 cases to the researchers, these were sampled from all the patients treated at the clinic since starting in 1977 (this represented only a small sample of the thousands of patients treated in the 12 years). Of the 149 only 27 cases were able to be assessed as they possessed independent documentation of their disease from a mainstream physician. The researchers concluded that there was little evidence for the Gerson therapy having an anti-tumour effect, instead finding only a very small amount of successful responses with three of the 27 cases showing a complete response and one patient with a stable disease result. There was some difficulty in assessing the efficacy of the Gerson therapy as the majority of these 27 cases had been given mainstream treatment alongside or before taking on the Gerson approach, therefore any recovery could not be causally related to the Gerson therapy. The second study by Reed et al¹⁴ collected data from 15 patients concerning their psychological state while undergoing the therapy. The researchers found a marked enhancement of pain control without the need for opiates, which were previously relied upon, and quality of life was enhanced. Patients experienced feelings of being in control and levels of high mood and confidence. The investigators concluded that the therapy offered a significant subjective benefit to the patients, and, that perhaps the active involvement of the patient in their own treatment may be a need not satisfied by current mainstream therapies. However, it must be noted that no firm conclusions can be drawn from this observational study due to the small number of participants.

One published review of the therapy found that the theoretical rationale behind the Gerson therapy does not stand up to scrutiny¹⁵. This author suggests that the "poisons" Gerson claimed to be present in processed foods are not present; that coffee enemas do not facilitate the removal of poisons from the liver; there is no evidence that the toxins Gerson refers to are the cause of cancer, and, lastly that the "healing" inflammatory reaction seen with the Gerson therapy does not promote cancer cells to be targeted and killed. However, in terms of Green's assertion that "poisons" are not present in processed food, more recent research shows that such foods do contain harmful substances¹⁶. Furthermore, it has been demonstrated that environmental toxins play a role in the initiation of cancer¹⁷. Members of the Gerson Research Organisation (an organisation in support of the Gerson therapy which aims to conduct and publish the results of public interest research into the role of diet and nutrition) have strongly rebuked this attack on the theories of the therapy¹⁸. Here, these authors reinforced the theoretical models of how coffee enemas are believed to stimulate the release of toxins, however, they do not present any experimental evidence involving patients on the Gerson therapy to back up their claims instead they cite animal evidence¹⁹. Furthermore, Hildenbrand and Lechner¹⁸ emphasise the importance of coffee enemas in pain reduction.

Members of the Gerson Research Organisation and Cancer Prevention and Control Programme have published a five-year survival rate study of 153 cancer patients undergoing Gerson therapy²⁰. This study found higher survival rates in patients with melanoma, colorectal and ovarian cancers undergoing the Gerson regime than for patients undergoing other therapies. However, this work has been criticised as being seriously methodologically flawed²¹. This research did not use the same matched control for each of their categories studied. Furthermore, it was not performed under tightly controlled conditions assessing the other therapies that the patients may have been receiving. The study's authors themselves admit that it is only a retrospective review, rather than the preferred randomised control trial. In addition, perhaps it could be argued that it would have been better for the research to have been performed by scientists independent from the Gerson Research Organisation. Therefore, with the poor methodology, this single study does not provide conclusive support for the efficacy of the Gerson therapy.

Lastly, Ernst and Cassileth's review of the evidence for the Gerson diet found that no convincing data exists²². The NCI²³ and ACS (American Cancer Society)²⁴ urge patients to not seek treatment from the Gerson clinic due to a lack of evidence of the anti-cancer effects and also potential hazards associated with the therapy.

Is the Gerson diet safe?

There is concern that people may choose to use this regime as an alternative to chemotherapy, thereby avoiding mainstream treatment. The Gerson Institute does not recommend the use of chemotherapy with the diet since the chemotherapy is seen as a poison in the body, and during detoxification the body would find difficulty in dealing with the level of toxins¹. Several aspects of the Gerson therapy itself have been seen as possible causes of adverse effects. These include: coffee enemas, the restrictive nature of the diet, thyroid supplements and also the now disused practice of drinking liver juice.

Serious illnesses, colitis, electrolyte imbalance and even death have been associated with the use of coffee enemas²⁵. However, these incidences have not been reported in patients

undergoing the Gerson treatment at the clinic. In two isolated cases reported two women in Seattle (one with cancer) died due to the enemas removing potassium from the body leading to serious electrolyte imbalance. In either case enemas were used more frequently than is recommended by the Gerson therapy guidelines. It is thought that continued home use of enemas may weaken the colon's natural function leading to problems such as constipation and colitis²⁵. In addition to the problems directly associated with enemas, the use of a restricted detoxifying metabolic diet alongside enemas may cause an "inflammatory reaction" which is believed to be part of the healing process¹². Negative symptoms of this inflammatory reaction include dehydration, nausea, diarrhoea, flu-like symptoms and death²⁴. In addition to this, there are safety concerns over the excessive ingestion of potassium. Those with too much potassium in their blood may suffer from hyperkalemia; symptoms include muscle numbness, tingling, abnormal heart rhythm, paralysis and possible heart failure²⁶.

The drinking of calves' liver juice was removed from the Gerson therapy guidelines in 1989 after a history of it being associated with infection with *Campylobacter fetus* subspecies *fetus*²⁷. An outbreak of this bacterial infection was seen in 1981²⁸ which killed nine cancer patients who were thought to be using the Gerson treatment. After learning of this outbreak staff at the Gerson Institute worked with those at the clinic in Mexico to ensure patient safety and by 1989 the policy of drinking liver juice was altered to receiving crude liver extract injections.

Known drug interactions

Due to the complex nature of the therapy many interactions with other drugs may occur, therefore, a medical professional should be consulted before undertaking the Gerson therapy.

Gerson diet conclusions

2c The data from the (most relevant, rigorous etc.) trials are of very low methodological quality [neutral because of lack of methodological rigour].

The Gerson therapy has been extensively publicised and written about since its inception, however, clear and substantive evidence for its efficacy is still lacking. The theories underlying the therapeutic approach are not supported by any scientific knowledge. The Gerson Institute itself is vague about the number of successful cases treated over the years. Safety fears and demands on patients' resources reflect negatively upon the Gerson therapy. The American Cancer Society and the US National Cancer Institute, do not recommend the use of the Gerson therapy, warning that patients should not turn away from mainstream therapy to rely only on this alternative approach. The specific safety problems, advice to stop conventional cancer therapies and the lack of substantive evidence for efficacy outweigh any benefits associated with the Gerson therapy.

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Literature search strategy:

The databases used to search for literature relating to the Gerson therapy were: MEDLINE, AMED, EMBASE, CINHALL, BNI, (all of these databases were searched from 1984 onwards) the DIMDI subbase XMEDALL was searched without limited dates. For all searches the term "Gerson" was used. In addition to searching the databases the Gerson Institute and Gerson Research Organisation websites were used as sources of information. The researcher also hand searched through information resources and archives available at the Bristol Cancer Help Center.



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