

HCG Diet Protocol

The hCG originally Developed by Dr. A.T.W. Simeons to assist clinically diagnosed obese patients in the return to a safe weight and decrease high risk health conditions. The body constantly try to maintain a balance or Homeostasis and the hCG diet is the key to rest the body and promote a healthy lifestyle change.

What is HCG

Human chorionic gonadotropin (HCG) is a human hormone present naturally in the body.

What effects does it have on the body?

From the initial discovery of HCG, HCG was used on both men and women to treat fertility abnormalities, such as enhancing the maturation of infantile sex glands (Anderson & Vakassi, 2019). When produced during pregnancy, HCG serves the purpose of stimulating the production of estrogen and progesterone. In men, the effects of HCG include stimulating the production of testosterone, which in turn results in high production of sperms, thus increasing fertility. Besides, HCG aids in the reduction of testosterone deficiency symptoms such as low sex drive, depressed mood, stress, and fatigue in men.

What is the HCG Diet?

An HCG diet is a combination of HCG injections and a maximum of 500 calories a day diet. The injections are administered daily for a specified period, usually administered at home. The 500 calories per day diet involve the consumption of various kinds of food that have fewer amounts of starch and fats as prescribed by the health practitioner. Before the commencement of

the diet, there are various prerequisites that need to be attained (such prerequisites will be discussed further under the phases of HCG section) (Butler & Cole, 2016).

How is HCG administered?

The administration of HCG differs depending on the prescription given and can be in through injections into the skin or muscle tissues.

What are the dosage and ranges administered for HCG?

The HCG doses vary (125iu, 150iu...) depending on the program needs of the patient.

How long is the HCG Diet?

The amount of weight to be lost by individuals differ from one person to another. Similarly, depending on the amount of weight loss needed, the duration of the HCG diet varies. The two common durations for an HCG diet are the 23-day and 40-day program.

What is the difference between the 23 Day and 40 Day program?

The 23-day program involves 23 daily HCG injections coupled with a 500 Calorie diet. Often, the 23-day program is aimed at losing a maximum 7kgs or 15 pounds (Antony & Natarajan, 2016).

The 40-day program involves 40 daily HCG injections coupled with the 500 Calorie diet. The 40 injections are the maximum for a single treatment course and are carried out with the objective of losing a maximum of 15 Kgs or 33 pounds.

The aspect of immunity is imminent and thus the injection administration is on a 6-day basis each week. The one-day break is meant to prevent the development of immunity by the body. However, between successive programs, there is a break of between 3-6 weeks.

What are the Benefits of HCG Diet?

- Aid in a balanced weight loss,
- Reducing the feelings of fatigue, irritation, hunger and exhaustion,
- Reduction of cholesterol levels, which is attributed to the intake of low calories
- Improving one's sex life by increasing production of testosterone (Lo, Rodriguez, Pastuszak & Khera,2018).
- Improve the metabolic rate within the body.

Are there any Down sides of HCG Diet?

Given the strictness of the HCG diet program, the only downside is in the form of the restrictions regarding what and how to eat and the exercises or physical activities to engage in.

What type of Exercise should be done on HCG Diet?

Regarding exercises, the HCG diet recommends light exercises only such as yoga, short walks, and easy biking. It is important to note that the calories involved in HCG programs are few compared to the energy levels required by vigorous exercises. Therefore, engaging in vigorous exercises will result in hunger among the patients, which will lead to increased intake of calories and thus the weight loss process is slowed down. After the program is done, a patient is allowed to resume their normal exercise activities.

What are the Possible Side Effects of HCG?

- Pregnant women increases the chances of having multiple babies and abnormal development of the embryo (Seyfang, Langendijk, Chen, Bouwman & Kirkwood, 2016).
- Women and girls who are menstruating
- Individuals with allergies related to HCG
- Children should not be considered (Griggs, Almohanna, Ahmed & Tosti, 2018).
- Migraine exacerbation

What are the Contraindications/Cautions for HCG?

- CHF
- Gout or Rx Allopurinol
- Fibroids, endometriosis, breast ca, prostate ca
- PCOS
- Severe systemic illness
- Respiratory disease-COPD, asthma
- Seizure disorder

True Emergencies

A true HCG emergency is that in women, HCG can cause ovaries to swell or rupture, a condition known as ovarian hyperstimulation syndrome (OHSS). Other symptoms include shortness of breath, fewer urinations than normal and vomiting and diarrhea.

Phases of HCG

Summary of the phases

PHASE	ACTIVITIES
Loading	<p>Lasts for the first two days</p> <p>HCG Injections with no diet</p> <p>Diet with excess starch and calories</p>
Lose Weight	<p>Lasts from 3rd to 23rd or 40th day</p> <p>HCG injections plus 500 calorie diet</p> <p>Dosage adjustments if need be</p> <p>Minimal Exercise</p>
Stabilize	<p>Lasts three days after the program</p> <p>500 calorie Diet with no HCG injections</p>
Maintenance	<p>Occurs for the rest of the patient's life and involves adapting better life practices</p>

Phase 1: Loading

The loading or gorging phase is the first phase of the HCG diet and takes a period of two days - the first two days of the program. The first take is characterized by HCG injections and loading. Loading refers to the excessive uptake of fats and calories during this phase. That is, patients undergoing the loading phase are required to take in lots of energy foods for the first two days of the HCG diet program. Why? The HCG diet program involves low intake of calories since the HCG avails extra energy reserves in the form of abnormal fats. However, the first two injections serve the purpose of stimulating the movement of the abnormal fats, which implies that during the first two days, the energy reserves will not yet be available hence the need to load up with energy to allow the body to cope with the calorie intake. Finally, given the high intake of calories, one should expect an increase in weight. However, this increase in weight is lost in the second phase.

Phase 2: Lose Weight

This is the phase in which the actual weight loss occurs. Phase two begins from the third day to the 23rd and 40th day in the 23-day and 40-day programs respectively. The activities involved in phase two include HCG injections or tablets and observing the 500 calories per day diet. Often, the HCG injections are administered in the morning either through tablets or injections. Regarding the 500-calorie diet, there are certain foods that are permissible and others that are prohibited during the HCG diet program (Navaro, Raz, Gabriel, Shriqui, Gonen & Boaz, 2017). Consider the table below.

Fruit	Amount	Proteins	Vegetables
Apple	1	Pork	Tomatoes, Spinach
Raspberries	Small handful	Ground Beef (93% Lean)	Cauliflower, Peppers Field Green
Blueberries	small handful	Beef	Green Beans
Strawberries	Handful	Turkey	Broccoli
Apricot	4 medium	Chicken Breast	Mushrooms
Pear	Medium	Veal	Peppers, Hot Peppers (not pickled)
Orange	1 medium	Venison	Cabbage
Peach	1 medium	Bison	Onions and Asparagus

The table above displays some of the foods that are allowed in the HCG diet program.

The following table shows an example of a typical day's HCG diet

Meal	Foods	Amount	Recipe
Breakfast	Fruit	1	

	Tea	1 cup	
	Water	700 ml	
Lunch	Water/Coffee	700 ml/ 1 cup	Cooked chicken, a diced apple with Apple chicken salad, and diced celery, mixed with lemon juice, cinnamon, nutmeg, cardamom, salt, and stevia to taste
	Lean meat	100 g	
	Vegetable		
Afternoon snack	Fruit	1	
Dinner	Lean meat (different from the one at lunch)	100	
	Coffee/Tea	1 cup	
	Water	600 ml	

HCG diet specifications include:

- The daily intake of water should be at least 2litres.
- For breakfast, only black tea and coffee are allowed together with sweeteners such as stevia.
- Regarding oils, coconut oil and MCT oils are the only oils allowed in the HCG diet program.

During phase two, the weight loss may stagnate at a given level, a situation called weight loss plateau. To overcome such a situation, two measures can be used. First, apple day. Apple's day involves consuming six apples for the entire day without consuming anything else. Second, stake day. During a stake day, the patient consumes vegetables only during the day and at dinner, consumes larger portions of proteins.

Dosage adjustments refer to making alterations to the HCG diet process by increasing or decreasing the HCG injections. Dosage alterations often occur in the event that the desired weight loss is achieved before the end of the period. In such a case, the administration of HCG is ceased while the patient continues with the 500 calorie diet. In other cases, a patient taking the 250 iu dosage may experience hunger due to the dosage being excess depending on the energy reserves available. Therefore, a dosage adjustment can take place such that the dosage is reduced to 200 iu. The inverse can also occur.

The hunger level is the point at which the body demands higher energy levels than those present in the body or made available by the intestinal tract. The reason for hunger may be due to increased physical activity leading to depletion of energy reserves or due to the dose being administered. Individuals should not subject themselves to hunger as it results in depletion of normal energy reserves as well as fatigue due to lack of energy.

Carb withdrawal is a condition in which the body tries to adapt to the new diet that is low in fat content. Carb withdrawal is caused by the shift from utilizing glucose for energy to breaking down fats. As such, the body experiences symptoms such as headaches, nausea, and irritability, which are common withdrawal symptoms.

Phase 3: Stabilize

This phase involves adapting to the new weight and begins immediately after the last day of the 500 calories diet and goes on for about three weeks. In this phase, the daily calorie levels are added up to 1500 calories per day to maintain a balance in the metabolic rate. In addition, a change in lifestyle involving eating and exercising habits is implemented to include the consumption of healthy foods and regular exercising activities. Such a change in lifestyle is vital in ensuring that the resumption of previous habits does not gain the weight loss. The balanced meal includes all nutrients such as carbohydrates, proteins, and vitamins.

Phase 4: Maintenance

Phase 4 focuses on maintaining the attained weight over a lifetime. It involves continuous improvement of lifestyle choices in terms of diet and physical activity.

References

Anderson, K., & Vakassi, S. (2019). Is human chorionic gonadotropin effective in producing weight loss?. *Evidence-Based Practice*, 22(9), 19-20.

Antony, J., & Natarajan, P. (2016). The impact of Human Chorionic Gonadotropin (hCG) on growth and food conversion efficiency in Royal Danio, *Barilius bakeri* Day.

Butler, S. A., & Cole, L. A. (2016). Evidence for, and Associated Risks with, the Human Chorionic Gonadotropin Supplemented Diet. *Journal of dietary supplements*, 13(6), 694-699.

- Griggs, J., Almohanna, H., Ahmed, A., & Tosti, A. (2018). New-onset androgenic alopecia following human chorionic gonadotropic diet and testosterone pellet implantation. *International journal of trichology*, *10*(6), 284.
- Lo, E. M., Rodriguez, K. M., Pastuszak, A. W., & Khera, M. (2018). Alternatives to testosterone therapy: a review. *Sexual medicine reviews*, *6*(1), 106-113.
- Navaro, D. A., Raz, O., Gabriel, S., Shriqui, V. K., Gonen, E., & Boaz, M. (2017). Functional Foods in fad diets: A review. *Functional Foods in Health and Disease*, *7*(9), 702-715.
- Pektezel, M. Y., Bas, D. F., Topcuoglu, M. A., & Arsava, E. M. (2015). Paradoxical consequence of human chorionic gonadotropin misuse. *Journal of Stroke and Cerebrovascular Diseases*, *24*(1), e17-e19.
- Seyfang, J., Langendijk, P., Chen, T. Y., Bouwman, E., & Kirkwood, R. N. (2016). Human chorionic gonadotrophin in early gestation induces the growth of estrogenic ovarian follicles and improves primiparous sow fertility during summer. *Animal reproduction science*, *172*, 21-25.