

Food Diet for Transgender before Hormone Replacement Therapy

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This paper describes some of the healthcare needs of transgender people before hormone replacement therapy. Gender identity is one of the most important concerns of human psychology. Sexual identity causes big humiliation for transgenders. They need steady help and support from the health care centers. The situation still gets worst when they do not get sufficient support from their own kin, as well as society. "In a survey, 28 percent of participants (transgender people) reported postponing medical care due to discrimination from their health care providers, while 19 percent reported being refused medical care completely" (Breeding Zachari). Lack of knowledge about the gender identity disorder and absence of defined conventions in the society may be the major attributes for this problem. Transgender people are already in a constant inner conflict between soul and body. This conflict with the society leads to hampered communications and miscellaneous relationships within family, friends and colleagues.

Transgender people are often rejected by their parents, peers, and marginalised in the society. They are frequently not engaged in necessary mental and physical health care due to barriers arising from both their gender minority status and the barriers associated with homelessness. In order to improve transgender individuals' health, a rightly dosage of food is must. It is important to understand the conditions for which this population is most at risk, the role of food during the hormone therapy.

It is absolutely necessary to ask the patient if hormone therapy is being governed as part of the transition process. Because not everyone who is transgender goes in the course of the physical transition process due to the high cost for physical transition and lack of insurance coverage. "For Sex change surgery in India, Average cost of sex change surgery in India for Male to Female is 5 to 6 Lakh, Which also includes some FFS Procedures (FFS Procedures are Optional and many of the patient they don't require them).For Female to male transition the average cost is around 6 lakh, Which includes 4 to 5 procedures"(Quora). Sex Reassignment Surgery (SRS) is one of the best solutions to transform oneself to their desired sex. Sex reassignment surgery is a multinational term used for all the surgical performances which are carried out to change a person's physical look and purpose to be similar to the opposite sex. Other terms used for SRS practice are Gender Correction Surgery and Gender Confirmation Surgery. Before SRS various procedures are carried out by the specialised doctors.

The initial step of diagnosis is done by a psychiatrist who specifically deals in the area of Gender Dysphoria. Depending on the condition, patients are advised to go for psychological

counselling for a period of three months to one year. Once the patient is diagnosed as a case of Gender Dysphoria, Hormonal Therapy is introduced in accordance to Endocrinologist. Hormonal therapy for transgender is commonly known as HRT (Hormonal Replacement Therapy).

Starting HRT treatment is a major step towards conversion of a transgender from male to female and female to male. It has an optimistic contact over physical as well as psychological value of life. Hormonal therapy directs to alter in body structure and make it more feminine. It will increase self-esteem of a transgender. When self-esteem is increased, it motivates a transgender for further decision taking for a better life. Positive effect of hormones is essential to serve the necessary purpose of carrying one's mind and body closer together. The duration and speed in physiological and psychological changes may vary from person to person depending on the each person's response and dosage of hormones. Even though the treatment is carried out by highly qualified doctors, there are some side effects involved "Estrogens are the mainstay therapy for trans female patients. Through a negative feedback loop, exogenous therapy suppresses gonadotropin secretion from the pituitary gland, leading to a reduction in androgen production" (Dittrich R).

Many trans men seek maximum virilization, while others desire suppression of their natal secondary sex characteristics only. As a result, hormone therapy can be tailored to a patient's transition goals but must also take into account their medical comorbidities and the risks associated with hormone use. (Unger, Cecile)

Estrogens play an importance role in hormonal replacement therapy of a Male to Female transgender body. By trying different natural food items transgender people can minimise the side effects in HTR. Particular food items are rich in estrogen, transgender people can minimise the intake of hormone tablet and intake such food items with the advice of doctor. It will reduce the side effects and improve their health. "Hormone therapy for transgender women is intended to feminize patients by changing fat distribution, inducing breast formation, and reducing male pattern hair growth" (E. J. Giltay, L. J. G. Gooren)

Even though there are some negatives in HTR, it is important to undergo HTR because:

Transgender Women (Male to Female): Estrogen may increase risk of thromboembolic disease and progesterone can cause weight gain. In those who have their testicles removed, estrogen replacement can play an important role in preserving bone mass. Compared to cisgender females, whose natural estrogen can decrease over time, consistent estrogen replacement use has been shown to have no negative changes in bone density. (Breeding Zachari)

In order to minimise this side effects nature-food serve as an agent to increase estrogen in patient's body. It is important to focus on food diet during the HTR because food also playing an important role in this treatment "According to the National Transgender Discrimination Survey, those who are transgender have an increased risk of eating disorders and an increased risk of abusing

diet pills to meet social norms” (Breeding Zachari). At present there is no definite nutrition plan for transgender patients. This paper is an attempt to provide food diet to transgender people.

After a particular period of hormonal treatment, SRS procedures are carried out. The physical changes on hormonal effects are

1. Skin Texture- “Skin becomes soften and more feminine with glow” (Kaushik Narendra). In order to improve the skin texture transgender can include sesame seeds in their regular diet and reduce the intake of hormone pills. It will reduce the risk of side effects in HTR.

The power of the sesame seed dates back thousands of years ago when it was used by the Egyptians as a medicine, while the women of ancient Babylon mixed honey with sesame seeds to prolong youth and beauty.... it can actually be really good for your skin and can often be found in many skin care products. Healthy skin is just one of the many benefits of adding sesame seeds to your diet. (Linwoods)

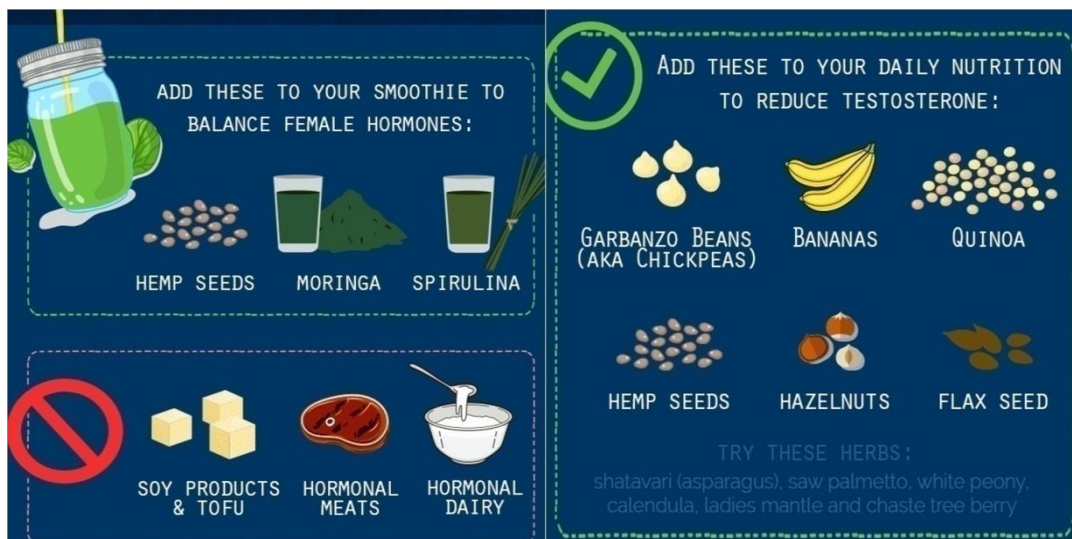
2. Skin Colour – “Female hormones specially estrogen make the skin colour lighter” (Kaushik Narendra). Fruits will increase the life span and beautiful skin too. Orange fruit plays a vital role in skin colour. “Orange juice ranks first as it is a rich source of Vitamin C, and anything which is rich in Vitamin C is usually great to lighten the skin tone” (Nidhi).
3. Fat – “Hormones lead to deposition of an extra layer of fat below the skin. The fat deposition helps in smoothening the hard bony/masculine edges making a feminine appearance” (Kaushik Narendra). Slim and curved body shape is a dream to every woman. Flax seed plays a major role in lowering Fat in human body and getting a perfect shape:

In conclusion, we studied the effect of flax fiber-enriched drinks and breads on fecal energy and fat excretion, blood lipids as well as subjective appetite sensation . . . flaxseed fibres appear useful for lowering blood cholesterol and may play a role in energy balance; however, food type and/or processing may be of importance. (Kristensen)

4. Cheeks – “Hormones change hollow masculine cheeks to fuller and rounder malar prominences” (Kaushik Narendra). Getting lovely and chubby cheeks is a crush for every female in the earth. Aloe is the best item to get the desired one. “A study published in the journal *Annals of Dermatology* showed that women who consumed about a teaspoon of aloe vera gel for 90 days showed improvement in facial elasticity” (Frothingham, Scott).
5. Lips – “lips tend to become fuller with a little feminine pout” (Kaushik Narendra). In order to get beautiful and hot lips one has to take Omega – 3 in their food diet. Omega -3 has the power to make lips with more feminine. “An expert who spoke to *Women's Health* pointed out recently that to keep your lips moist and beautiful, your body needs to ‘constantly replace old skin cells with new ones’. And, it seems that the Omega-3 fats in

walnuts (and fish, too) may help ‘regulate this turnover so that it happens all the time’’. (Jio, Sarah)

6. Jaws – “Hormones don’t have effects on jaw bones but they do reduce muscle mass. This reducing effect on masseter muscles (chewing muscles), leads to narrowing of lower face”(Kaushik Narendra). For the jaws strength and perfect shape, there is no food diet has found still now. By doing regular jaw exercise transgender people can get the shape.
7. Beard Reduction – “Though not significantly but few people report that hairs become softer and less thick” (Kaushik Narendra). When lowering the testosterone in a human body, it will reduce beard and moustache hair. When a transgender begins eating the following foods items that will force losing testosterone. Food items to reduce testosterone are “flax, quinoa, hazelnut, bananas, raw plantain, garbanzo beans and hemp seed. There are herbs available that can also aid in balancing the female hormone system, including: shatavari (asparagus), saw palmetto, white peony, calendula, ladies’ mantle and chaste tree berry” (Safiyaelle). When the testosterone level come down means automatically manliness comes down. During this time transgender person should consume food items which contains more amount of estrogen. Estrogen makes the facial hair softer and gives female look to transgender people.



(Safiyaelle)

8. Neck – “Neck contour tends to become more feminine owing to skin texture and mild fat deposits. Fat layer indirectly tend to cover the Adam’s apple making it less prominent” (Kaushik Narendra). Instead of increasing fat transgender people can wear clothes which covers their neck because increasing fat can introduce diabetes and heart problems. A person with small necks does not have their Adam’s apples visible at all. “However, please take in mind that Being obese can increase your diabetes risk, for heart and vascular problems, increase your liver, gallbladder and digestory problems like acid reflux (which can cause pain to swallow and other horrible stuff), etc. and take years out of your life span” (Aven). A few dress codes for their consideration:



9. Breasts - “Everybody (male as well as females) has milk ducts in chest area. When female hormonal therapy is started (estrogen), the breast tissues start growing making the breasts larger. This has been termed as secondary puberty” (Kaushik Narendra). Breast could be considered as an important organ for female sex. It gives good shape to their body and having a perfect size and shaped breast is a dream for every transgender female. In HRT it takes up to two years to get the results. In this process some dangerous drugs are used on the patient. Instead of taking huge hormone pills, a few natural food items and oil can bring the desired one to certain extent. Fenugreek oil is one of the best remedies to increase the breast size. First the respective person has to take two drops of fenugreek oil in their palms and rub it between their hands. Finally apply it over the chest both the sides. Massage gently for 5 minutes. It will give good results. The same can be done with Olive oil and Soybean oil. Even some food items can do the wonder:

Some foods that are known to stimulate estrogen and subsequent breast growth in your body are as follows. Fruits rich in phytoestrogens like papayas, apples, dates, pomegranates, and cherries. Vegetables like radish, carrots, soybean sprouts, eggplants, garlic, and cucumbers. Nuts like walnuts, pistachios, and chestnuts. Monounsaturated and polyunsaturated fatty acid containing food like olives and avocados. (Naser Shaheen)

10. Effect on Body Hair distribution:

Facial hairs (beard and moustaches) are minimally affected, by the anti-androgen therapy. There is slight effect leading to some reduction in intensity with slower growth. Those who are in teens, will have significant difference, and anti-androgens

prevent new facial hair growth. Body hairs tend to disappear / became lighter with anti- androgen therapy. (Kaushik Narendra)

It is important to increase the level estrogen in transgender body to avoid facial hair growth. When the above-mentioned food diet is followed by a transgender woman means the level of estrogen can be balanced in the body.

11. Fat distribution over body parts –

With hormonal therapy fat distribution slowly changes over months. Body develops a tendency to accumulate fats in more feminine pattern. The areas like hips, thighs, arms, breasts tend to develop fat deposits; waist becomes smaller as compared to shoulder and hip area. Fat over face also increases; overall fat deposits conceal the muscular and boney prominences giving more curvaceous and rounded off feminine appearance. (Kaushik Narendra)

When a person is assigned as female at birth are naturally having the influence of estrogen in their body which consequence puberty tend to accumulate fat more easily in some parts of body such as hips, thighs and buttocks. This can give a perfect shape, curvier and appearance which is something many transgender women may seek body contouring for. It is possible to achieve a feminine form through a variety of food diet and life style.

These food items have been used for natural hormone balancing. “Flaxseeds are very high in phytoestrogens and are a great source of healthy fats. They’re also tasty! Try sprinkling ground flaxseed on cereal, yogurt, fruit, and salads. . . must use ground flaxseed (instead of whole flaxseed) in order to digest them and get the full phytoestrogenic effect” (Sorella Lucille). Soy is one of the important food items which contains high amount of phytoestrogen. There are some vegetables and fruits know for phytoestrogen. High-phytoestrogen fruits include: dried prunes, peaches, raspberries and strawberries. High-phytoestrogen veggies include: alfalfa sprouts, Winter squash, green beans, collard greens, broccoli and cabbage” (Sorella Lucille).

This recipe was taken from Dr. James A. Duke’s classic book, *The Green Pharmacy*. Ingredients required for this recipe are two cups water, one cup fenugreek and Dash each of basil, licorice, anise, lemongrass, fennel, marjoram, caraway, dill. Procedures to prepare this recipe are to collect all the ingredients in a vessel and to a boil it. Then it should be cooled naturally, after that honey and lemon can be added to make it sweeter. “Dr. Duke recommends drinking 1-2 cups per day. Since Bustea is very high in phytoestrogens, I don’t recommend over-consuming it if you take prescription hormones. (Always speak with your doctor before combining herbs and hormones or other prescription meds.)” (Sorella Lucille).

12. Effects on external genitalia:

Transgender on anti-androgens may report reduction in libido with decrease in frequencies of penile erections. Testicular volume decreases (by about 25 to 50 %)

depending on the dosages of anti-testosterone medicines. Testicular spermatid cells undergo atrophy gradually leading to halt in spermatogenesis. The prostate and urinary bladder also shrink in size. The raphe running down under the penis over scrotum in midline tends to darken. (Kaushik Narendra)

It is important to decrease penile erection and sperm cell production because both these actions urge the body to act as a male. When these actions are controlled by proper food diet, it is easy to feel a feminine organism. For that the patient should follow the following food diet. "Fatty fish is a rich source of Omega-3 fatty acids. In particular, cold water fish like salmon, sardines, tuna, mackerel, trout and herring are good foods to reduce testosterone" (Sepalika). Fishes are normally rich in Omega-3. It will reduce testosterone and boost estrogen in a human body. When the testosterone level gets low means automatically it is a gap for another hormone. Soy milk can increase the level of estrogen and at the same time it will decrease testosterone.

Thirty-five men consumed milk protein isolate (MPI), low-isoflavone soy protein isolate (SPI) (low-iso SPI; 1.64 ± 0.19 mg isoflavones/d), and high-iso SPI (61.7 ± 7.35 mg isoflavones/d) for 57 d each in a randomized crossover design. . . . Serum collected on d 1, 29, and 57 of each treatment revealed that dihydrotestosterone (DHT) and DHT/testosterone were significantly decreased by the low-iso SPI [9.4% (P 0.036) and 9.0% (P 0.004), respectively] and the high-iso SPI [15% (P 0.047) and 14% (P 0.013), respectively], compared with the MPI at d 57. Other significant effects included a decrease in testosterone by the low-iso SPI relative . . . and increases in estradiol and estrone by the low-iso SPI relative to the MPI at d 57 (P 0.010 and P 0.005, respectively). (Barbara L. Dillingham)

Another food item is licorice root. "25 men consumed 7 grams of licorice root daily, which caused a 26% drop in testosterone levels after just one week" (Wang, Liqiang).

13. Body shape / Body Composition:

During hormonal therapy, under the influence of rising levels of female hormones, (specially Oestradiol), lower pelvis and hips tend to increase, especially if hormonal therapy is started in early age before or around puberty. In later stages when bones have developed fully, these may not lead to significant changes in bony structures. (Kaushik Narendra)

Oregon State University in Corvallis conducted a study through Linus Pauling Institute, specified that consuming plant-based foods that contain phytoestrogens and it may help to raise estrogen levels. Examples of such foods include: "In seeds - flaxseeds and sesame seeds are containing high amount of estrogen. In fruits - apricots, oranges, strawberries, peaches. In vegetables - yams, carrots, alfalfa sprouts, kale, celery. In herbs - turmeric, thyme, sage" (Tiberian Janet).

Various food combinations are examined through theoretical method in this paper. It will help the transgender people to improve their health and helps them to balance their hormone secretion. The researcher has studied different eatables like nuts, fruits, vegetables, seeds, herbs and grains which are rich in estrogens. The selected food combination will provide required nutrition for transgenders and it can be used instead of hormone pills. When transgender people take these foods regularly it will improve their health and feminine characteristics. The selected eatables are low in cost and rich in nutrition. Routine intake of these food items will improve their health and body shape. Due to tremendous demands of natural food diet for transgender, this paper may provide a small amount of idea for their food diet. Hence it can be concluded that the extensive literature study has been performed on the food diet for transgender people and shown wide scope for such diet in future.

Recommendations

Government should introduce transgender canteens like army canteens at each district in order to provide these eatables at low cost.

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