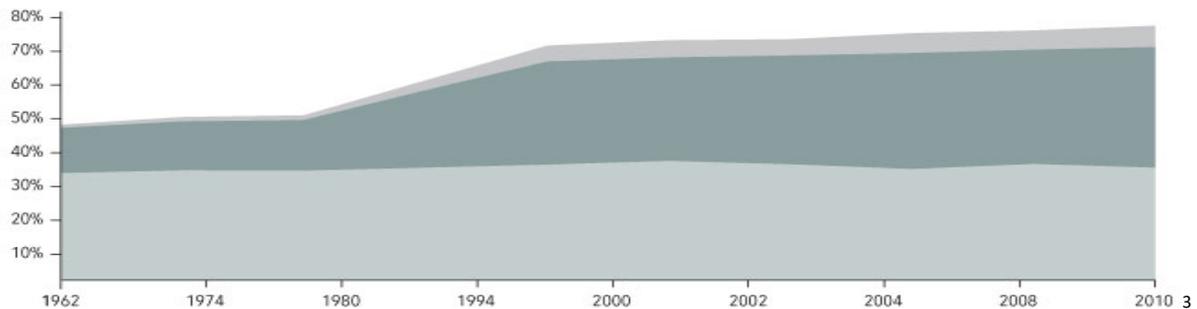


## Obesity Overview

Despite the staggering list of risks associated with obesity, more than 35% of American adults have been diagnosed with this condition<sup>1</sup> and that number is rising each year.<sup>2</sup> Our modern medical view of treatment for this epidemic condition utilizes diet & exercise, often moving on to weight loss drugs and surgery if patients don't see results. This approach could be seen as a two-dimensional view for a multi-dimensional challenge, and often falls short in long term treatment. There are some major leverage points within the wisdom of Ayurveda on the topic of weight management that could assist in greater success, and bring with them a cascade of accompanying health benefits. The Ayurvedic view looks at the whole individual and the underlying cause for any imbalance. It meets those challenges where they are, instead of working on symptoms only and ignoring their root origins. We are going to look deeply into this ancient science and see how it can work for today's dilemma of American Obesity.

■ Overweight ■ Obesity ■ Extreme obesity



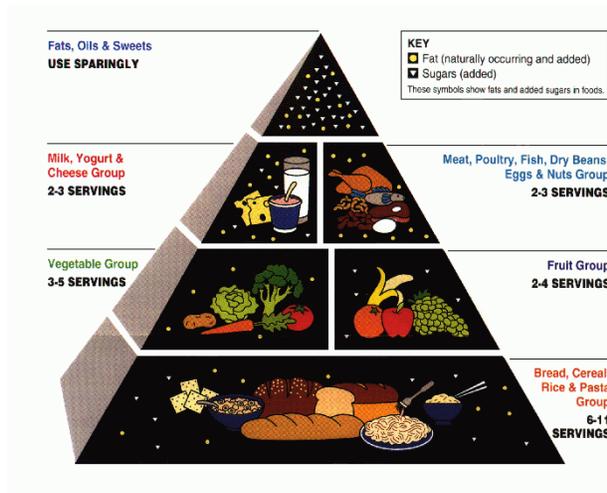
The following is the general guidelines for categorizing weight:<sup>4</sup>

- Underweight: BMI 18.5 or below
- Healthy Weight: BMI 18.5-24.9
- Overweight: BMI 25-29.9
- Obese: BMI 30 or above

Studies show there are many health challenges that come along with obesity, including higher risk for disease conditions such as: heart attack, stroke, hypertension, high cholesterol, cardiovascular disease, diabetes, sleep apnea, osteoarthritis, infertility, liver disease, and the list goes on.<sup>5</sup> Taking a step back from obesity, we see that nearly 70% of American adults are overweight.<sup>6</sup> This is a slippery slope for almost  $\frac{3}{4}$  of our population to be sitting on, and provides a clear picture of our cultural norms of diet & lifestyle. Many people consume based upon patterns modeled from our Standard American

Diet (S.A.D.), or the USDA Food Pyramid, and end up facing challenging health conditions. Where have we gone wrong? Let's take a look at what these current cultural standards are built upon and see if we can find some places to recreate our fundamentals.

### Examining the Paradigm



Looking at our original food pyramid from the USDA in 1986 helps us to see how our idea of healthy diet has taken form. In the foundation of our pyramid we see 6-11 daily servings of “Bread, Cereal, Rice, and Pasta”, many of which are processed foods. One study showed that 85.3% of cereals consumed in the US diet are highly processed refined grains.<sup>7</sup> In this “spectrum” regarding carbohydrates, there is quite a variance in terms of nutritional content and quality.

Here is one way to look at this spectrum of processed foods:

Degree of Processing	Description	Examples
Category 1: Unprocessed, Whole Foods	Foods in their unaltered, natural state; complete with their nutrient and enzymatic contents.	Organic Fresh Fruits & Vegetables, Raw Nuts & Seeds, Fresh, Raw Milk
Category 2: Minimally Processed or Cooked Whole Foods	Foods in their natural state, but cooked or slightly processed without large amounts of fat, salt, sugar, preservatives or additives. <sup>8</sup>	Cooked Vegetables, Cooked Organic Meats, Cooked Whole Grains, Roasted Nuts, Yogurt, Hummus
Category 3: Processed Foods	Foods altered from their original state and including natural or chemical ingredients to artificially preserve their shelf life. These generally lack the original nutrients and enzymes present in the food.	Bread, Some Cereals, Pasta, Instant Oatmeal, White Flour, Some Condiments, Crackers, Canned Food, Commercial Salad Dressings, T.V. Dinners
Category 4: Ultra-Processed Foods	Foods unrecognizable from their original state, usually in a box or package; designed as convenience foods: high in fat, sugar, salt, and often including many additives.	Sugary Cereals, Soda, Protein Bars, Most Commercial Baked Goods, “Instant/Quick” type meals, French Fries, Fast Food

As you might guess, the more processed the food, the less nutrition you are getting. In exchange for nutrients you are getting unrecognizable substances such as additives and preservatives. These chemicals burden organs, especially the liver and kidneys, which have to work overtime to process, eliminate or store the chemicals. Unfortunately, this overtime work takes these important organs away from their normal regenerative functions like building blood and tissue.

People who eat a larger amount of foods from Categories 3 and 4 are at greater risk for obesity and chronic disease.<sup>9</sup> That 6-11 servings at the foundation of our Food Pyramid has quite a range of possibilities for health or lack thereof, depending on how one is choosing to get those servings. The Economic Research Service has linked obesity with an underconsumption of whole grains, vegetables, and fruits.<sup>10</sup> So someone that’s choosing to get those carbohydrate servings from whole grains and starchy vegetables is going to get very different health results than someone having croissants, sugary breakfast cereals, and pasta. As we work our way up the pyramid, we see a similar theme in all categories with a spectrum of **quality** when comparing processed to unprocessed, organic/chemical-free to pesticides/irradiated, and packaged to fresh. We see this dilemma especially with vegetables, meat, dairy and sweets.

### Hidden Dangers of Processed Food

Looking a little deeper into the topic of **quality** in our paradigm, let’s look at some of the dangerous hidden ingredients in processed foods; unfortunately the list is quite long. Here are just a few near the top of the list, many of which have been linked to obesity through research:

<p><b>Hydrogenated Oils/Trans Fats:</b> Common Culprits: Baked goods, deep fried foods, margarine, vegetable shortening, many convenience foods.</p>	<p>These oils raise LDL levels, (“bad cholesterol”) and lower HDL levels (“good cholesterol”)<sup>11</sup> which has been linked with Obesity, Diabetes, and Heart Disease.<sup>12</sup></p>
<p><b>“White” Food:</b> Highly refined foods such as: White flour White sugar White rice</p>	<p>Vitamins, minerals, enzymes and fiber have been stripped out of these foods and synthetic chemicals added in, which often end up being unrecognizable to the body’s digestive system.<sup>13</sup> These foods also have a high glycemic index, which spikes blood sugar, leading to increased hunger and contributing to obesity, diabetes, and cardiovascular disease.<sup>14</sup></p>

<p><b>High Fructose Corn Syrup:</b> Common Culprits: Sodas, fruit-flavored drinks, condiments, cereals, some bread, baked goods, candy, ice cream, salad dressings</p>	<p>Brings challenges such as: High doses of sugar, which become toxic in the body (one soda=15 teaspoons sugar), Isolated fructose which challenges the liver, Added chemicals or pollutants that could contain toxins, such as mercury.<sup>15</sup></p>
<p><b>Sodium (or Potassium) Benzoate:</b> Used as a preservative in many processed food &amp; drinks</p>	<p>Linked to hyperactivity and is possibly carcinogenic when combined with Vitamin C<sup>16</sup></p>
<p><b>Butylated Hydroxyanisole (BHA):</b> Preservative in baked goods, fried foods, cosmetics, butter, meat, nuts, snack foods, potato chips, animal feed</p>	<p>Research shows dietary consumption to cause cancer in animals.<sup>17</sup></p>
<p><b>Sodium Nitrates &amp; Nitrites:</b> Additive used to cure meats</p>	<p>Speculated to cause gastric cancer.<sup>18</sup></p>
<p><b>Artificial Colors:</b> Common Culprits: Most highly processed foods and drinks, Condiments</p>	<p>Some artificial colors have been linked to chronic conditions such as hyperactivity and asthma.<sup>19</sup></p>
<p><b>Artificial Sweeteners:</b> Such as Aspartame in Diet Soda, Equal, and NutraSweet</p>	<p>Are being studied for contribution in conditions such as cancer, seizures, headaches, low mental performance, and brain tumors.<sup>20</sup></p>

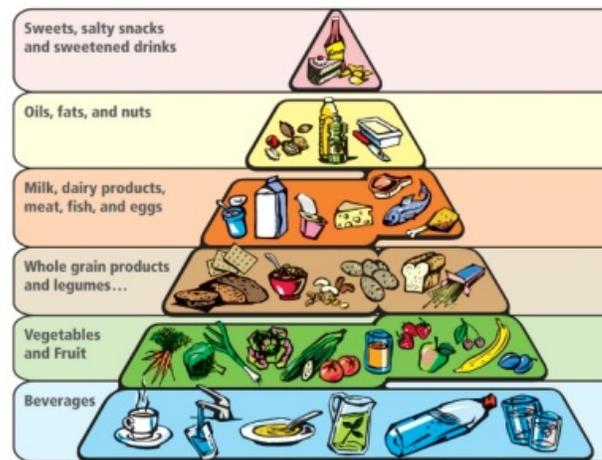
The topic of quality shows one leverage point already in lowering our risk for obesity: eating whole, unprocessed foods for the bulk of our diet. Let's take a look at another possible paradigm for balancing out our daily servings.

**Food Pyramid for Healthy Adults by the Swiss Society for Nutrition**

In this pyramid we see a drastically different foundation that is emphasizing hydration (1-2 liters per day).<sup>21</sup> The next level up shows a swap between the carbohydrate level and the vegetable and fruit level, which is split into the greater part being vegetables. Our next level is our carbohydrates, which, according to the Swiss Society for Nutrition is broken down to 3 servings per day, and at least 2 of them are whole grain sources.<sup>22</sup> Shifting

For athletes exercising ≥5 hours per week

Based on the Food Pyramid for healthy adults of the Swiss Society for Nutrition



© 2005 Swiss Society for Nutrition SSN

from 6-11 daily servings of processed starches to 1, is a big step away from obesity. The next level shows 3 servings of dairy products, and 1 serving of meat, fish or eggs. Beyond this, we see oils, fats, and nuts to be their own level, equaling 50-70 grams of high quality nuts and oils for cooking, dressings, and spreads. The top level of this pyramid is sweets, salty snacks and sweetened drinks, to be used very sparingly.<sup>24</sup>

### Ayurvedic Approach to Diet

Ayurveda shows yet another paradigm in nutrition that is based upon individuals and their particular needs. It teaches that there are 3 main archetypal body constitutions, called *Doshas*: Vata, Pitta and Kapha. All people are a unique blend of these 3 constitutions, and their blend of these doshas is called their Prakruti. Depending on their particular ratio of the three, their nutritional needs will change. Their ideal quantity intake, as well as which foods to eat, changes from season to season. It is also dependent on how strong their *agni*, or digestive ability, is. The idea is to only eat what your body can fully digest, so there is no leftover undigested food stuff in the body. Here is a brief general guideline for the Doshas:

Vata	Higher quantity of sweet/building, heavy, and moist foods. Smaller, more frequent meals, and regular mealtimes. Focus on eating in a calm state. Plenty of fluids, oils, and fiber. Generous amounts of warm spices with every meal.
Pitta	Larger quantity of sweet/building, heavy, and cool foods-making sure to have enough protein. Regular mealtimes, focusing on food only at mealtimes; no multi-tasking while eating. Cooling spices with each meal.
Kapha	Smaller quantity of light, dry, and warm foods. Regular mealtimes with minimum snacking throughout the day. Plenty of hot spices with each meal.

Ayurveda also teaches us to observe the cycles of life in every way, and that health largely depends on our alignment with these cycles. It teaches us to eat according to the seasons. The food that naturally grows in our region during each season will best provide the nutrition we need to thrive there, and will give us the best chance of healthy digestion. In John Douillard’s “3-Season Diet” he explains this in the following way:<sup>25</sup>

- Spring: Best time for a low-fat, low-calorie diet. Throughout time animals have shed off their winter fat layer with “spring greens” and sprouts. This is a natural time to cleanse and reduce.
- Summer: Best time for a diet high in carbohydrates, when the days are longer and we burn more energy. Nature supports this with an abundance of fruits, vegetables and grains.
- Winter: Best time for a protein rich diet. This includes fall because most winter foods are harvested in the fall, and last through the cold months, providing deep warmth and sustenance.

In addition to observing the cycle of seasons, we learn that the body functions best when we eat only in the daytime hours, sleep when it’s dark, work in the morning/afternoon, rest/contemplate in the evenings. We call the concept of living with the Earth’s cycles *circadian rhythm*. Modern science has also discovered that circadian rhythm affects many aspects of our physiology and is suspected to influence all metabolic function.<sup>26</sup> Ayurveda teaches that when we stray from natural rhythms, we begin to create imbalances in the doshas. As doshic imbalance increases, disharmonies emerge, such as lack of proper digestion, insomnia, and disharmony in the mind. When we observe these natural cycles, general well-being re-emerges, helping to create healthy urges and desires, and an overall state of balance is more accessible.

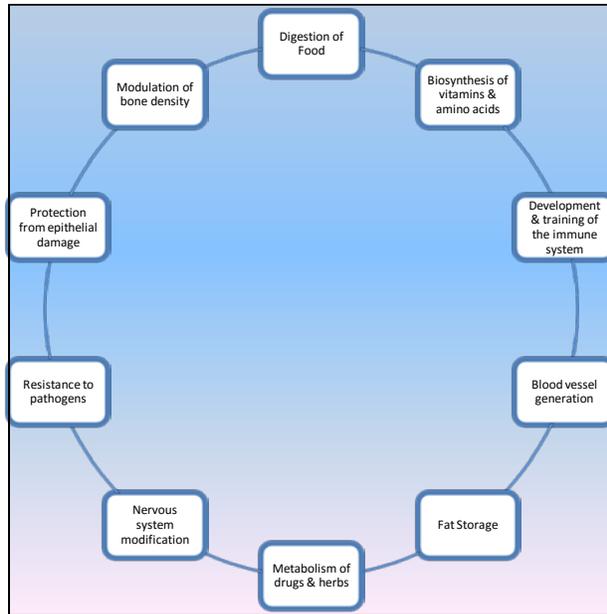
### **Food Away From Home (FAFH)**

Throughout the years studies have shown fluctuations in Americans eating “food away from home” (FAFH), which means meals eaten in restaurants and fast food. We see a direct correlation between FAFH intake and lower quality diet. In a study done by the Economic Research Service published by the USDA, they show that when people are eating away from home they are eating food that is higher in fat, saturated fat, and cholesterol, as well as lower in fiber.<sup>32</sup> It also shows that people eating more meals at home have a higher percentage of those meals being home-cooked and with their families or friends, which could have an influence on the emotional state when eating.

### **Antibiotics and Obesity**

We have learned that our bodies are colonized with beneficial bacteria that live in our gut, upper alimentary canal, ear canals, and on our skin. Because the establishment of this colonization happens in the first 3 years of life, adults generally have similar amounts of microbes as they had at age 3. Therefore, it’s not surprising that the use of antibiotics, especially during the first years of life, can be devastating to the long term health of the gut. Antibiotics wipe out populations of beneficial microbes in the intestines and this causes disruption in many of its functions.<sup>27</sup> When this microbiome becomes

unstable, we see dysfunction in the body's ability to break carbohydrates into short-chain fatty acids.<sup>28</sup> These microbes help keep our immune system functioning and our body digesting. The following is a general breakdown from a study done of the main functions of intestinal bacteria.<sup>29</sup>



29

We are now seeing a link between weight gain and antibiotics. But then again, this is not so surprising when we remember that farmers have known for ages that antibiotics make animals gain weight. One study tracking almost 164,000 children living in Pennsylvania showed that healthy children that had been given antibiotics seven times or more in early childhood years had more weight gain than those who had 7 doses or less of antibiotics.<sup>30</sup> Another study done by Martin Blaser, MD, showed that when mice were given antibiotics

in their water, in combination with a high fat diet, the mice developed significantly more fat than mice simply given the high fat diet. The study showed differences between males and females. The male mice gained 25% more body fat, while the females gained 100% more body fat.<sup>31</sup> The implications of this could be monumental for understanding obesity in a culture that uses antibiotics routinely for child and adult illness.

### Western Treatment for Obesity

Western medical treatment for obesity has the following possible elements:

- **Calorie Reduction:** National Institute of Health recommends adults to reduce calorie intake by 500-1000 per day in order to lose 1-2 pounds per week (projecting to lose 5-10% of total body weight in 6 months).<sup>33</sup>
- **Lifestyle Changes:** Balancing *energy in* (calories), with *energy out* (physical activity). Developing healthy dietary patterns and food choices; avoiding saturated and trans fats.
- **Weight Loss Medications:** For patients that have spent 6 months or more with the above methods and have not succeeded in losing 1 pound per week during that time, medication is sometimes presented as an option. Phentermine is the most commonly prescribed medication

for this application in the US, with an estimated 6.2 million users between 2008-2011.<sup>34</sup> All weight loss medications have a list of common side effects, most often affecting the digestive, nervous and cardiovascular systems.

- **Weight Loss Surgery:** Presented as an option for extreme obesity when a patient has a BMI of 40 or more, and has been unsuccessful with the previous methods. Or in cases of life threatening conditions with BMI over 35. Two examples of surgeries are: banded gastroplasty (or “stomach stapling”) and gastric bypass.<sup>35</sup>

### **Ayurvedic View of Obesity**

The Caraka Samhita states that obesity is the most challenging of the 8 undesirable physical constitutional ailments.<sup>36</sup> It is a difficult condition to balance because it must be treated with *Reduction* therapies, which become especially challenging due to the intense appetite that accompanies obesity. We see the difficulty of treating obesity when we look at the high numbers of people that are struggling against this condition with little success. We can speculate that at the time when the Caraka Samhita was written, they did not see obesity in the same numbers as we do today, since our “modern” diet & lifestyle is showing obesity numbers to rise, rise, rise. This ancient text states that there are 8 particular challenges for the obese:<sup>37</sup>

- Deficient longevity: Other tissues (dhatus) do not grow to the extent of fat
- Slowness in movement: Fat creates heaviness, looseness and slowness
- Difficulty to engage in sexual intercourse due to small amounts of semen as well as obstruction<sup>38</sup>
- Weakness: Due to disturbed equilibrium of the tissues
- May emit a bad, fleshy smell: Due to the unhealthy nature of the fat tissue and excess sweating
- Excess sweating: The excess fat cannot withstand physical activity and brings about sweating
- Excess hunger: Sharp, excessive digestive power
- Excess thirst: Sharp, excessive digestive power

The classical etiology of the obese condition explains that there is obstruction caused by the dosha of water and earth, Kapha. This obstruction is created by factors such as: excessive intake of heavy, sweet, salty and cool foods such as sweets, meats, fried foods, or low quality foods, sedentary lifestyle/lack of exercise, day-sleeping, emotional eating, lack of healthy fats in the diet and alcohol or drugs.<sup>39</sup> This obstruction of Kapha blocks movement in the digestive system and the

dosha of air and ether, Vata, is trapped in the abdomen. This results in an increase of the digestive fire (or Agni), creating a tornado of hunger in the individual, which can become insatiable.<sup>40</sup> Low quality dhatus and excessive fat that is raw and unprocessed is therefore produced. Vasant Lad, M.A.Sc, teaches that in cases of obesity, the excess medas dhatu (fat) retains increasing amounts of water and oil, which can lead to “fatty tumors, gallstones, tartar on the teeth, fatty stools, diabetes and hypertension”.<sup>41</sup>

### **Overview of Ayurvedic Treatment for Obesity**

- **Laghana Chikitsa** (Reduction Therapy): This is complete detoxification and removal of *Ama*, which can be done through immersion method of **Pancha Karma** or slower methods like **Palliation**. This would generally be done at the start of obesity treatment and would include an initial weight loss diet that will reduce Kapha dosha & Medas dhatu, while working to pacify Vata dosha as well.
- **Establishing a Balanced Long Term Diet and GHE's (Guidelines for Healthy Eating)**: Appropriate to the individual's healthy constitution, following seasonal changes.
- **Herbs**: Intake of herbs that are pungent, bitter and astringent can be helpful, as well as herbs with the following reducing actions: alterative, diaphoretic, dipana, diuretic, lekhana, and purgative.
- **5 Sense Therapies**: Taste, Sight, Smell, Sound, and Touch
- **Activity**: Prolific physical, mental, and sexual exercise.<sup>42</sup>
- **Liver Cleansing**: The liver is the most important of all the organs to the digestion and conversion of fats.<sup>43</sup>
- **Pranayama**: (Breathing Techniques): Breath of Fire and other Solar Pranayama<sup>44</sup>
- **Body Therapies**: Used in Panchakarma and throughout the weight loss period: Svedhana, Shirodhara, Shirobasti, Pinda Svedhana, Daily Abhyanga, Udvartana, or Dry Skin Brushing can be especially helpful.<sup>45</sup>
- **Establishing Daily Lifestyle Practices**

## Pancha Karma and the Clearing of Ama

*"[Ama is] the foul, undigested remnants of food, which stick in the tissues and promote disease."<sup>46</sup>  
-Maya Tiwari*

Pancha Karma is the ultimate detoxification and removal of ama from the body using one or more of the 5 classical treatments of purification. It is performed in conjunction with the preparatory and rejuvenative phases before and after purification, and must be administered under the guidance of qualified Ayurvedic healthcare providers. Pancha Karma is done only when the patient is strong enough to withstand the reduction therapies without becoming weak. Ayurveda calls this strength the *Ojas* of the patient.

*Phase 1-Purvakarma:* In this phase we draw the ama from the tissues and into the digestive tract so that it can be eliminated. We know we have achieved this when we see a thick white coating on the tongue. It is done with the following methods:

1. Mono-Diet: Choosing one whole grain, one bean or legume, and light, constitutionally appropriate vegetables, and eating only these foods for the duration of the 3 Pancha Karma phases. Kitcheree (basmati rice and mung dahl), is traditionally used.
2. Olenation, Udvartana, or Skin Brushing: Oil Therapies including Abhyanga with Mustard or Safflower Oil if the patient also has a vata imbalance or Udvartana, which is massage with the use of dry powders or flours. Dry skin brushing may also be useful.<sup>47</sup> Internal olenation could be used with strong pungent and bitter herbs.<sup>48</sup> Also during this time, Shirodhara (warm oil streamed over the forehead) or Pinda Svedhana (massage with a small pouch filled with rice, herbs and oil) may be useful.
3. Fomentation (Heat Therapy): Sauna or Herbal Steam should be applied following previous body therapies, for 20-35 minutes, using stimulating herbs such as camphor, calamus, sage, and cinnamon.<sup>49</sup> This is an important reduction therapy in the treatment of obesity.

*Phase 2-Pradhan Karma:* This is the pinnacle of the Pancha Karma cleansing. This phase is entered once the ama has sufficiently been pulled from the tissues and into the digestive tract, ready for elimination. There are 5 traditional cleansing practices, 4 of which are currently practiced in the US.

1. Vamana: This is therapeutic vomiting. This is the best therapy for removing excess Kapha dosha from the stomach and could be very useful in Pancha Karma treatment for obesity.

2. Virechana: This is therapeutic purgation. This is used to remove excess Pitta dosha from the small intestines, and it can relieve congestion in the liver and gallbladder.<sup>50</sup>
3. Basti: This is application of enemas, and is used to remove excess vata from the large intestine, and restore downward movement. There are Niruha Bastis, which are cleansing, and Anuvasana Bastis, which are tonifying. Niruha Bastis would be highly utilized in obesity treatment, and Anuvasana Bastis are used to restore tonification between and after purification therapies.
4. Nasya: This is application of herbal oils into the nasal passageways in order to cleanse them. Obesity treatment would most likely include the use of stimulating herbs such as calamus, eucalyptus and holy basil.
5. Rakta Mokshana: This is bloodletting and is used to remove toxic blood so that new blood formation is stimulated.<sup>51</sup> This therapy is not currently used in the US.

*Phase 3-Praschat Karma:* This is rejuvenative tonification following deep cleansing such as pancha karma, using the following methods:<sup>52</sup>

1. Restore/rebuild/balance agni- the digestive power must be balanced before rejuvenative foods and medicines can be given. This is classically done through Samsarjana Krama, which uses watery gruel that gradually becomes more solid as agni is re-established. This process goes at the pace of which the body can digest without showing symptoms indicating incomplete digestion, such as ama, gas, or discomfort.
2. Once agni is restored, rejuvenative foods and medicines can be given until the patient's vitality is restored and is ready to move on to the next phase of long term treatment.
3. Rejuvenative of the Mind: This encompasses many treatment methods; for example: silence, meditation, mantras, aromatherapy, rejuvenative body therapies, rest, and herbs such as Brahmi.

### **Palliation**

This is a milder method of reduction therapy that is used in patients that do not have strong enough *Ojas* for pancha karma. Though it is a less aggressive form of purification, its effects can be significant.<sup>53</sup> Duration for obesity treatment would be around 30 days. Its elements include diet, herbs, exercise, heat, color therapy, aromatherapy, and subtle therapies.

## Establishing Long Term Diet

Following the purification of Pancha Karma or Palliation, the agni will be balanced and therefore we can direct treatment towards establishing a healthy long term diet. This is an important step in Ayurvedic treatment of obesity. Without taming the intense appetite, obesity diet plans can be very difficult to manage and sustain. If there is still an intense appetite after completing purification, we can further utilize substances that are “heavy and non-nourishing”, such as aged honey, as they will pacify the hunger, but reduce medas dhatu.<sup>54</sup> And honey is especially reducing when combined with other non-nourishing foods.<sup>55</sup>

Long term diet would include the following types of foods, in small to moderate quantity, in accordance to the Prakruti:<sup>56</sup>

	Elements	Food Examples
Light	Ether & Air	Salad Greens, Raw Vegetables, Sprouts, Barley, Millet, Puffed grains, Black Pepper, Quinoa, Basmati Rice
Pungent	Fire & Air	Cinnamon, Clove, Ginger, Black Pepper, Chilies, Long Pepper, Garlic, Onion, Vinegar, Turmeric
Bitter	Ether & Air	Salad Greens, Kale, Chard, Broccoli, Dandelion Greens, Milk Thistle, Artichoke, Endives, Cabbage, Cucumbers, Lemon Juice
Astringent	Air & Earth	Mung and many other Beans, Cauliflower, Broccoli, Brussel Sprouts, Apples, Pears, Pomegranates

Eating a diet high in light, pungent, bitter and astringent foods will help to create movement in the body and astringe tissues. The overall diet should also consider the Prakruti and agni of the individual, as well as the season. Great attention should be given to the quality of food, taking a diet abundant in simple, fresh, organic produce that is prepared without chemicals or extensive processing. All meals should be taken with abundant warm spices to assist digestion.

## Guidelines for Healthy Eating or GHEs

When food is truly understood and respected for the medicine and nourishment that it is, mealtime becomes sacred. Here are a few of the guidelines, adapted by Dr. Halpern from the Caraka Samhita, that lay the path towards optimal digestion.<sup>57</sup>

- ❖ Eat in a peaceful environment, with a peaceful state of mind
- ❖ Eat food that has been lovingly prepared
- ❖ Pray, meditate, offer gratitude, chant, or say some sort of blessing before eating
- ❖ Practice slow & mindful eating, without engaging in talking or multi-tasking
- ❖ Thoroughly chew food to an even consistency
- ❖ Eat food when it is warm and avoid cold food and drinks, as they weaken agni.
- ❖ Eat food with minimal liquid. If it is a dry meal, drink up to 4 oz. of water during the meal, and refrain from drinking fluids 30 minutes before or after eating.
- ❖ Eat to ¾ full, avoid a full expanded stomach; as it creates ama and increases Kapha, contributing to obesity.
- ❖ Relax after meals to allow digestion
- ❖ Take food only after the previous meal has been digested, 3 hours minimum

### Herbal Treatment

Similar to the foods recommended, pungent, bitter, and astringent herbs can also be useful. In addition, herbs with following reducing actions are especially useful:

Herbal Action	Definition	Examples
Lekhana or Medohar	Herb that assists weight loss by scraping away, burning up, or starving excess fat tissue	Guggulu, Chitrak, Shilajit, Black Pepper, Turmeric, Bibitaki
Diuretic	Herb that increases urination	Juniper Berries, Shilajit, Parsley, Coriander, Gokshura
Diaphoretic	Herb that increases sweating	Basil, Black Pepper, Chilies, Ginger, Tulsi, Peppermint, Garlic
Dipana	Herb that aids in digestion & metabolism	Ginger, Cinnamon, Clove, Cumin, Trikatu, Chitrak, Fennel, Gurmar
Alterative	Herb that assists blood & plasma cleansing	Guggulu, Turmeric, Garlic, Dandelion Root, Gentian, Milk Thistle, Neem
Purgative	Herb that induces diarrhea	Cascara Sagrada, Castor Oil, Senna
Channel Clearing	Herb that aids the body in clearing channels and reducing blockages	Guggulu, Calamus, Camphor, Manjista, Ginger
Circulatory Stimulants	Herb that increases circulation	Guggulu, Turmeric, Black Pepper, Cinnamon, Ginger, Bala

You may have noticed the herb Guggulu was listed in many of the herb categories above, as it's an herb that can be very useful in the treatment of obesity. Guggulu is a hot herb that carries the primary tastes of bitter and pungent, as well as astringent and sweet in lesser degrees. It is a strong detoxifying herb that clears channels by its "scraping" action. This is particularly useful in the case of high cholesterol, which is often the case with obese patients. Its channel clearing abilities have been shown to lower total cholesterol by 20%, and raise HDL (good cholesterol) by 36%.<sup>58</sup> The lekhana action is displayed in a study of 30 obese participants, divided into two control groups. Group 1 was given caloric intake restriction of 1200-1600 calories and a vigorous 30 minute walk. Group 2 was given the same regime with the addition of 1.5-3 grams of Guggulu per day, for 30 days and they found that Group B had greater weight reduction, losing 17% more weight on average.<sup>59</sup>

Guggulu is also used in many formulations to treat various disease conditions, such as with *Dasanga Guggulu*, to treat obesity and high cholesterol. It consists of Guggulu, Triphala, Chitrak, and Trikatu, all of which are listed in the herb chart above. In studies with mice, Triphala has been shown to reduce total cholesterol and LDL levels, while helping to raise HDL cholesterol and reduce overall body weight and fat measurements.<sup>60</sup> So it's no surprise that these two herbs work well together in treatment for obesity.

## **5 Sense Therapies**

Ayurveda utilizes all 5 senses to administer therapeutic treatment. We have discussed taste in detail through diet and herbs. We have also discussed method of touch with the body therapies above, such as daily dry skin brushing which can help to stimulate the lymph. Additionally, sight could be utilized through color; such as wearing red or blue to bring in fire, air, and ether elements. Sound methods could include music, mantra or nature sounds. And lastly, invigorating essential oils such as cinnamon, camphor, and peppermint could be used to stimulate the body through smell.

## **Activity**

As we have already seen with the western approach, vigorous exercise is vital in the treatment of obesity. We must balance energy demand so that it is greater than energy input (food intake). Therefore, we see recommendations for prolific physical, sexual and mental exercise. Intense aerobic exercise can be used for this as well as fast-paced yoga asanas such as *Sun Salutations*. Obese patients may need to build up slowly to create cardiovascular capacity, but eventually daily exercise should be achieved. This can be especially helpful in the morning during the hours of 6am-10am as this is the time of day that Kapha accumulates.

## Liver Cleansing

Many aspects of obesity put extra strain on the organs. For example, overeating puts an additional burden on the elimination organs of the liver, kidneys, and colon. This can lead to stagnation and toxicity in the body, thyroid and adrenal dysfunction, constipation, and its accompanying risks.<sup>61</sup> It can be especially helpful to cleanse and support the liver in the treatment of obesity since the liver has many metabolic functions, including the breakdown and synthesis of fat and cholesterol. This can be done with herbs having action on the liver such as alteratives, bitters, cholagogues, and hepato-restoratives; as well as through observation of healthy liver guidelines such as:

- ❖ Intermittent Fasting: Do not eat from sun-down to sun-up (dinner to breakfast the next day).  
*“When the sun goes down, so does your fork”*
- ❖ Lemon water upon waking and throughout the morning. This helps to gently cleanse the liver and alkalize the body.
- ❖ Plenty of fresh, bitter foods in the diet like leafy greens and sprouts.
- ❖ Avoid liver taxing substances: alcohol, fried food, processed foods, sugars, fast food, caffeine

## Establishing Daily Routine & Practices

*“Healthy habits create a healthy life, unhealthy habits create an unhealthy life.” Dr. Marc Halpern<sup>62</sup>*

Daily routine is our greatest tool in our quest for long term health. It allows us to address ongoing imbalance in a consistent way that produces results over time. Creating a flowing morning routine that involves self-care such as oiling the body, elimination, exercise, pranayama (breathing techniques) meditation and/or yoga can maximize our potential for balance in the day. Developing regular routines around mealtimes and sleeping times is paramount when we live in a world with so much stimulation at our fingertips. In treatment for obesity, we must address where the patterns for an individual are imbalanced and work to establish healthy routines that maintenance their tendencies ongoingly.

## Psychological Aspects

The body cannot fully transform without transformation of the mind. As Dr. David Frawley teaches, “All diseases tend to rest upon psychological factors as the mind precedes the body in order of creation.”<sup>63</sup> According to the Vedas, the mind has three qualities of inner expression: Sattva: Stillness, Rajas: Turbulence, and Tamas: Ignorance or Darkness.<sup>64</sup> An analogy that is often used to describe this

likens the mind to a lake. In a Tamasic mind, the lake is murky and muddy as if the sludge has been stirred up from the bottom and we cannot see anything except darkness. In a Rajasic mind the lake has many stones being thrown into it, and so the surface of the water has many waves and ripples. In a Sattvic mind we see the lake completely still and able to reflect anything that surrounds it in its mirror surface. When the body is in an imbalanced state, the mind will reflect this through rajasic or tamasic thought patterns that often turn into behaviors. Rajasic behaviors are those that fluctuate between extremes, are sporadic, or intense. The individuals have some awareness of what they are doing, yet are unable to control their actions. Tamasic behavior tends to be darker and more ignorant such as when a person is consumed by laziness, lethargy, hatred or violence. Here the person is lacking awareness of a bigger picture. They are often consumed by their suffering or ignorance, blaming others or living in denial.

We can see elements of both rajas and tamas in the condition of obesity. The compulsive habits and behaviors that we may see are rajasic,<sup>65</sup> and the heavy and obstructing energies are seen as tamasic. The quality of the mind must be addressed in order to truly bring the body into balance. One avenue to heal the mind is through meditation, prayer, mantra, and self-inquiry, as these can help to develop Sattva in the mind.<sup>66</sup> This may even be the biggest leverage point we have in the treatment of any disease or imbalance.

## **Conclusion**

We have examined both the Western and the Ayurvedic view and treatment of obesity. Though there are many overlapping points, Ayurveda has a more extensive and holistic treatment of this condition. It's use of whole body cleansing and focus on complete, healthy digestion are major leverage points. The herbs, daily routines, pranayama and psychology go beyond the Western methods that are generally limited to diet, exercise and drugs. Additionally, we see the individualization in Ayurveda, such as with dosha-specific diet & lifestyle, to be key for long term success in the treatment of the whole person as opposed to the statistic. May we choose wisely on our paths towards health, and find all that we seek. Blessings.

*Namaste.*

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