SECTION 4 ASSIGNMENTS

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1.IDENTIYF AT LEAST FOUR CHARACTERISTICS OF AHEALTHFUL WEIGHT.

A healthy **weight** is defined as the appropriate body **weight** in relation to height. Body Mass Index (BMI) is calculated from your height and **weight** and is a useful measure of overweight and obesity. People who are overweight (BMI of 25 to 29.9) have too much body **weight** for their height.

People's **weights** are **determined** by multiple factors including their genetic background, eating habits, metabolic rate and their general activity level. Genes. Genes influence body **weight** by setting basic parameters on the body's metabolic efficiency (the efficiency with which the body burns calories).Normal or healthy weight. A person with a BMI of 18.5 to 24.9 is in the normal or healthy range.

Overweight. A person with a BMI of 25 to 29.9 is considered overweight.
Obesity. A person with a BMI of 30 to 39.9 is considered to have obesity.
Extreme obesity.

1.make **healthy** living a priority for yourself and your family.
choose to eat good, **healthy** food.
drink water instead of sugary drinks.
Exercise. Regular physical activity burns calories and builds muscle — both of which help you look and feel good and keep weight off. ...
2.Reduce screen time. ...
3.Watch out for portion distortion. ...
4.Eat 5 servings of fruits and veggies a day.

2. CAN YOU INCREASE YOUR BASAL METABOLIC RATE? IS IT WISE TO TRY? DEFEND YOUR ANSWER.NO IS NOT WISE TO INCREASE.

What is Basal metabolic rate? Is the rate of energy expenditure per unit time, is energy in units per unit time ranging from watt to ml or joule per hour per kg body mass J.

As the widespread availability of highly calorific food has resulted in a high incidence of obesity, attempts to decrease body weight is to concentrated on trying to reduce energy intake. So consuming more calories than expended is part of the initial problem, reducing intake, consciously counting calories, is the best solution. Mechanisms smooth out the large day-to-day differences in energy consumption, decreasing the importance of the size of a meal.

In the short term a reduction in energy intake is counteracted by mechanisms that reduce metabolic rate and increase calorie intake, ensuring the regaining of lost weight. For example, even a year after dieting, hormonal mechanisms that stimulate appetite are raised. Over a million calories are consumed a year yet weight changes to only a small extent; there must be mechanisms that balance energy intake and expenditure. As obesity reflects only a small malfunctioning of these mechanisms, there is a need to understand the control of energy balance and how to prevent the regaining of weight after it has been lost. By itself, decreasing calorie intake will have a limited short-term influence.

Body mass index, body weight, calorie deduction, obesity, weight gain

As it predisposes to many diseases, and decreases life expectancy, the increasing incidence of obesity is among the greatest problems facing the human race.

Psychological interventions have in common that they attempt to reduce calorie intake, for example trying to regulate appetite, increase satiety, or reduce portion size. It has been claimed that "portion size is a modifiable determinant of energy intake that should be addressed in connection with the prevention. It has been said that "foods that target within-meal satiation and postmeal satiety provide a plausible approach, trying to reduce calorie intake is also the fundamental principle that directs much of public health policy.

The dietary guidelines suggest that we should "Avoid oversized portions." In addition the number of calories is printed on food labels and lower calorie options are widely available in supermarkets. The policy on healthy eating suggests "putting calorie information on menus" and "helping people to eat fewer calories (for example by changing the portion size or the recipe of a product).

However, obesity demands a more sophisticated approach than counting calories: It needs to be treated as an interdisciplinary topic. Those giving psychological advice need to be cognizant of aspects of both physiology and nutrition: Their recommendations must be compatible with bodily predispositions.

Biologists have tended to examine physiological mechanisms that influence energy balance. For example the lipostatic hypothesis suggests that a center in the hypothalamus monitors metabolites in the blood and, using feedback mechanisms, attempts to balance energy intake and expenditure .

The approach gained a boost with the discovery of leptin, a hormone released from adipose tissue that reduces hunger. In contrast, psychologists typically expect the level of body fat to reflect aspects of the environment, food intake, or lifestyle. The present argument is that the interdisciplinary nature of obesity demands both approaches: There are interactions between physiology, the environment, and psychology. More specifically it is argued that having a reduction in calorie intake as the central plank of an antiobesity strategy fails to acknowledge the existence of physiological mechanisms that predispose to its failure.

As the approach taken by psychology is to reduce caloric intake, various questions are considered. How does the body respond to a small change in the caloric content of meals? How does obesity develop? What nutritional approach should be taken rather than simply concentrating on calorie intake

Advocating a reduction in the calorie intake reflects the implicit assumption that physiological mechanisms do not, to any great extent, balance energy intake and expenditure. However, from meal to meal and day to day, food intake is characterized by very large differences in the number of calories consumed.. In addition if meals vary greatly in size for a wide variety of reasons, and adaptations exist to smooth out these variations, changing the energy content of a meal is going to have a limited impact.

social and psychological variables. The impact will be even less if, over time, there are mechanisms that smooth out the day-to-day variations in calorie consumption.

Implicit in the proposition that reducing the energy provided will help to control weight is the view that the energy consumed in one meal has a limited if any impact on subsequent consumption.

The body has as short-term goals the smoothing out of energy intake and maintaining the existing body weight. However, in the long term other mechanisms come into play that discourage large fluctuations in weight. Although over a period of months large amounts of energy are consumed, over time there are often relatively small variations in body weight.

The mechanisms are not perfect, but over long periods the ability of the body to balance energy intake and expenditure is staggering

Obesity epidemic? There are various contributory factors.

First, obesity often reflects putting on one or two pounds (0.5 to 1 kg) a year for decades: that is, there is a very good, albeit not perfect, control of energy balance. Second, the nature of the entire diet is important. To prevent energy compensation, low-energy dense foods should be consumed However, many Western diets have a high energy density that rapidly compensates for any reduction in energy intake. Third, in many Western societies a major predictor of obesity is poverty Poverty is associated with a low expenditure on food, a low intake of fruits and vegetables, and a high intake of fat. The cheapest foods tend to have a high energy density.

Another part of the answer is that to control weight it must be possible to both lose weight and maintain that loss. It may be that it is not the amount consumed at a meal that is important but rather the lack of opportunity to prevent subsequent compensatory adjustments. Having eaten a large meal, is there an opportunity to subsequently reduce calorie intake? Often we do not eat because we are hungry but because it is meal time; we do not choose what to eat but rather eat what has been prepared by others; we consume a portion determined by those serving the meal, the food manufacturer, or the food outlet. As such, the opportunity to balance energy consumption and expenditure may be limited.

It is clear that obesity reflects many factors other than calorie intake and any coherent policy should address more than the caloric content of a meal.

The weight conscious are actively engaged with trying to not put on weight. As often people are close to energy balance, counting calories is potentially a successful approach. Eg.There remain the two thirds of the Countries. population who are overweight if not already obese: In this circumstance, reducing the calorie content of particular meals helpful?

Whereas those who are weight conscious are working at the margin of energy balance, and may even consume less energy than they expend, the obese tend to have an intake in excess of expenditure. In fact, as their intake is often greatly in excess of expenditure, over months a new and higher "settled point" is created. Why then should a small difference in calorie consumption greatly influence body weight? The settled point is defended, such that any decrease in energy intake will stimulate compensatory mechanisms. In those who are obese, calorie intake will reduce weight only if an energy deficit can be achieved.

Although both the obese and those who successfully control their weight are faced with powerful pressures to regain any lost calories, there are critical differences. Those maintaining a low weight often use cognitive strategies to prevent compensatory increases in calorie consumption. Those who put on weight may be unaware of psychological strategies or may choose not to use them. Unless the obese consciously engage with calorie control, requiring food manufacturers and food outlets to reduce portion size would be expected to be ineffective. If there is no conscious control of calorie intake, the body will simply replace the lost energy.

In addition, it is unlikely that minor changes in diet will reduce the incidence of obesity, as controlling body weight will often require a complete dietary makeover. It does, however, seem likely that concentrating on the nature of the food consumed, rather than simply reducing calories, offers advantages. An approach that considers macro-nutrients, energy density, and glycemic load may help to prevent energy compensation.

There are reports that appetite, the control of body weight, and energy compensation are influenced by the macronutrient composition of meals (amount of fat, carbohydrate, and protein).

When in the short term the energy content of the diet is reduced, if some of the available foods are energy dense, that is they provide more calories per gram of food, then the lost energy tends to be replaced. In fact, after reducing calorie intake, only when the diet is uniformly of a low-energy density is energy

weight, is to ensure a return to the preexisting body weight. These mechanisms have implications for those recommending that people should try to reduce obesity by decreasing calorie intake: They suggest that the strategy, unless part of a wider intervention, will tend to fail.

In the longer term, the development of obesity reflects the assessment by the body that, over a period, excess energy had been consumed and thus a new higher "settled body weight" is established. Historically, it would be predicted that the marked societal changes that resulted in a positive energy

balance would result in a higher "settled" body weight; for example, larger portion sizes, eating more often outside the home, decreasing physical activity, and the ready availability of cheap highly calorific foods, by itself, reducing calorie intake will lead to a lower body weight. The existing body weight will be defended.

psychology to the examination of aspects of the environment and changes in behavior that can modify their impact.

In theory the best strategy is to prevent obesity in the first place by ensuring that no more energy is consumed than is expended. In most cases, given the multitude of factors that influence the chances of achieving energy balance, such an objective will be achieved only after widespread societal changes. The body develops a "settled point" that reflects the levels of energy input and expenditure associated with obesity. This is how should the problem of obesity be approached?

3.IDENTIFY AT LEAST FOUR SOCIETAL FACTORS THAT MAY HAVE INFLUENCED THE RISE IN OBESITY RATES IN THE UNITED STATES SINCE 1963.

Obesity is caused by consuming more calories than you burn.

Obesity, however is acomplex condition caused by more than simply eating too much and moving too little.

The environment you live in and your community's social norms surrounding food, eating, and life style strongly influence what,when,and how much you eat?.

Similarly ,your environment affects whether,where,and how you are able to be physically active.

DIET AND LIFESTYLE

Changes in American dietary habits and lifestyle have contributed to today's high prevalence of obesity.

Those changes include.

1.More adults in the workforce,combined with long work hours and commutes,have led to fewre meals prepared at home.

2.More Americans eat more meals in restaurants,which often serve oversized portions of calorie-dense foods.

3.Portion sizes of packaged foods,such as snacks and soft drinks, have got larger over the years.

4.Children spend more hours watching television,using computers,or playing electronic games and less time engaging in active play and recreation.

Adults have got more sedentary as fewer perform physical labor on the job.

ENVIRONMENT.

5.The way communities,workplaces,and schools are structured in much of the United State has contributed to the country's high rate of obesity.

Some of the changes seen in the past few decades include.

6.Food(especially junk food)is now sold in places such as gas stations and office supply stores that historically did not sell food.The end result is that food is available almost constantly.

7.Food products and restaurants are marketed intensively on television,radio,online and elsewhere.

8.Many communities have no safe routes for walking or bicycling,or safe places to play outdoors.

9.Most jobs present few opportunities for physical activity.

10.Many schools provide little or no reces periods or gym classes.

11.poor neighborhoods are often'' food deserts,''with no purveyors of fresh, health foods

12.There are many television shows dedicated to food,restaurants and cooking that show no regard for the health consequences of the food being featured.

STRESS contributes to obesity in afew ways.

1.People who are stressed tend to make bad food choices and to eat too much.

2.Stress causes the release of stress hormones including cortisol,which triggers the release of triglycerides(fatty acids)from storage and relocates them to fat cells deep in the abdomen.Cortisol also increases appetite.

GENES

Some people have agenetic predisposition to being overweight or obese.

However,in most cases,those people do not become obsese unless they also have an energy imbalance-meaning they consume more calories than they burn.

Agenetic tendency toward obesity often becomes apparent only when aperson's or group's lifestyle or environment changes significantly.

Genetic syndromes such as prader-willi,Alstrom,Forssman,and others can also lead to obesity.

Such syndromes are rare,however,and they typically include other abnormalities besides obesity.

MEDICAL CONDITIONS.

Avariety of medical condtions are associated with being overweight and obese including.

1.Cushing's syndrome(arare syndrome that results from excess production of cortisol by the adrenal glands)

2.Eating diorders,especially binge eating disorder,bulimia nervosa,and night eating disorder

3.Growth hormone deficiency

4.Hypogonadism(low testosterone)

5.Hypothyroidism(under active thyroid)

6.Insulinoma(atumor of the pancreas that secretes insulin)polycystic ovarian syndrome

In some cases it's not clear whether obesity causes the medical condtion,or whether the condition causes obesity.

DRUGS THAT CONTRIBUTE TO OBESITY

Certain drugs have been shown to encourage weight gain-often by increasing appetite-and contribute to obesity.

These drugs include.

1.Diabetes drugs,including insulin,thiazolinediones(actos and Avandia) and sulphonylureas.

2.Drugs for high blood pressure,including thiazide diuretics,loop diuretics,calcium channel,blockers,beta blockers and alph-adrenergic blockers

3.Antihistamines(used for allergies),particularly cyproheptadine

4.Steroides,including corticosteroids and birth control pills

5.Psychotherapeutic medications,including lithium,antipsychotics,and antidepressants

6.Anticonvulsant drugs(used for epilepsy and some other conditions),such as sodiumvalproate and carbamazepine.In some case,other drugs can be substituted for those that encourage weight gain,or alower dose can be used.

4.YOUR FRIEND MISTY JOINS FOR LUNCH AND CONFESSES THAT SHE IS DISCOURAGED ABOUT HER WEIGHT.SHE SAYS THAT SHE HAS BEEN TRYING``REALLY HARD''FOR 3 MONTHS TO LOST WEIGHT BUT THAT NO MATTER WHAT SHE DOES.SHE CAN NOT DROP BELOW 148 LB.BASE ON HER HEIGHT,YOU KNOW MISTY IS NOT OVERWEIGHT,AND SHE EXERCISES REGULARLY.WHAT QUESTIONS WOULD YOU SUGGEST SHE THINK ABOUT?HOW WOULD YOU ADVISE HER

Misty.If you've been putting in the hard work that's necessary to lose weight, but your attempts have just felt like an endless series .Weight loss resistance is a description for an entire category of people who, due to certain physiological imbalances, are unable to lose fat through traditional methods of healthy diet and regular exercise.

The causes range from thyroid malfunction to hormone imbalance, sleep deprivation to food intolerances or digestive imbalance, and more. Because there are many potential sources of the problem, there isn't a one-size-fits-all treatment that works for all weight loss resistant individuals. The key is to uncover your own, specific chemical imbalance or physiological "glitch" so that your doctor can target it with a treatment plan tailored to you. Until you talk to your doctor, you cannot be sure what plan is best for you,would help you lose weight. Doctors are armed with more methods for you to manage and treat the core of your problem.

If it may turned out that you have metabolic syndrome, a genetic disposition that was transmitted to you from one of your parents father or mother. The test revealed you're your triglycerides were sky high, as your blood sugar, and to top it all off, you had insulin resistance, so your are not processing sugar properly. Your body was just hanging on to absolutely everything you put in it and not letting go. You simply wasn't configured for weight loss.

The good news for you is that all of this is manageable with the right nutritional and medical plan. You got started right away working with your doctors to get your blood sugars stabilized and bring everything back into proper balance so your body would start releasing the weight again. Is you to think where you might be to have jumped right on this problem, because you are on the road to some devastating illnesses, including heart disease. How to manage your body chemistry?, your weight has to remained in a safe range, and healthier overall.Talk to your doctor.

I really want you to get this: You are not destined to be overweight or obese just because you got a raw deal in the metabolic or biochemical department. You do not have to feel trapped in your body anymore. I know you'd do anything to get out of the quicks and onto dry land and win back

control over your weight. I'm extending you a helping hand, So you listen can carefully because it's more than just your weight we're talking about now; It's your life.

If all of this is resonating with you and you have serious concerns that there could be a physiological cause for your inability to lose weight, then the first order of business is to closely examine your symptoms so that you can present them to your physician or doctor.

To get you started on your internal inspection, my advise to Misty some of common symptoms to discuss with your medical professional, because they might indicate weight loss resistance. But, just remember,if you are experiencing any physical issues that you're worried about, you should bring them to your doctor's attention.

1.Do you find yourself unable to lose weight, despite closely following a healthy eating plan and exercise program?

2.Has your physician diagnosed you with or medicated you for three or more of these conditions: high triglycerides (150 or higher), low HDL cholesterol (less than 50), high blood pressure, or elevated blood sugar?

3.Do you experience gastrointestinal symptoms such as diarrhea, constipation, acid reflux, nausea, vomiting, or bloating two times or more per month? Or, do you notice any of these digestive symptoms or headaches after eating wheat, dairy, soy, eggs, or nut products?

4. Is your natural waist measurement (the area 1 inch above your belly button) 35 inches or more because you're a woman?

5.Have you recently been experiencing disruptive sleep patterns such as waking up often during the night or finding it difficult to fall asleep, or do you sleep six or fewer hours most nights of the week?

6. Are you feeling any of these symptoms: increased sensitivity to cold, drastic changes in your body temperature, thinning hair, excessively dry skin, hoarseness, memory loss, or difficulty concentrating?

7. Have you recently been under chronic (ongoing) stress in your life? The kind of stress that you cannot seem to resolve? Take a moment here to measure your stress level on a sale from 1 to 5, with 5 being the highest level of stress and 1 being the lowest. Is your stress level 3 or higher?

8.Are you on any of these medications: antidepressants, diabetes medications, steroids, blood pressure medications, anti-seizure drugs, sleeping pills, birth control, or any form of hormone replacement therapy (HRT)?

9.Do you use or abuse illicit drugs or abuse prescription medications that have not been prescribed to you?

10.Women only: Have you been told by a doctor that you are menopausal or perimenopausal, or have you ever been diagnosed with polycystic ovary syndrome? Or are you often experiencing two or more of these symptoms: hot flashes, mood swings, tender breasts, vaginal dryness, excessive sweating, or changes in menstruation?

You cannot know with certainty if you fall into this weight loss resistance category without a medical evaluation, because everyone's body chemistry is different. There are specific tests that can give your doctor the data needed to properly diagnose you and create a treatment plan, but the idea is to be an informed patient by asking the right questions and providing the right information when you visit your doctor.

REFERENCES

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