

Somatotypes

Dr. William Sheldon in the 1940s was the first person to propose a theory suggesting that human physique could be categorised into three common body types (somatotypes) with certain different physical and physiological traits. These three somatotypes are: Endomorph, Mesomorph and Ectomorph.

Endomorph: People who fit this category would be described as overweight or obese. Their bodies usually store lots of hard-to-burn fat and noticeable muscle building is difficult. This body type has a slow metabolism and does not digest certain foods well. These foods include starchy foods, sugars and fruits high in sugar e.g. banana, mango. Consuming these foods can lead to the formation of fat which is easily stored in the endomorph's body.

If you are an endomorph:

Regular effective exercise and appropriate physical activity may help to increase your metabolic rate.

You should avoid or minimize eating starchy and refined complex carbohydrates like potatoes, white bread and pasta.

Avoid high salt and high sugar foods.

Eat lots of vegetables.

Mesomorph: People who fit this category have a thicker bone structure and greater levels of fat and muscle building capacity. These present an athletic body type that is somewhat muscular or toned and which responds well to strength training.

What is your body type or somatotype?



Endomorph



Mesomorph



Ectomorph

If you are a mesomorph:

Your body may build muscle and lose fat easily. You need to maintain a good strength training and toning regimen.

Your body can tolerate complex carbohydrates like ground provisions, whole grain, rice and pasta but as you get older it can get easier to add excess body fat.

Be prudent and exercise good eating habits that include a low fat diet while being careful with your consumption of certain complex carbohydrates like bread, potatoes and pasta.

Ectomorph: People who fit into this category tend to have a body type that is generally lean, thin and tall with long bone structures. This body type has a high metabolism and stores the least amount of fat of the three body types. These individuals present a generally slim, trim appearance which some may classify as 'bony', and they find it very difficult to gain fat or mus-

If you are an ectomorph:

Gaining more size or muscle mass can be a very challenging endeavour but you can still develop firm muscles through proper training.

You may tend to excel at endurance activities or sports and should seek to maximise your advantage in these disciplines.

Your body can tolerate starchy foods such as rice, pasta and bread quite well without gaining or storing fat easily. However, choosing the nutrient-dense whole grain versions as opposed to the refined complex carbohydrates may be more beneficial to your cause.

Is your somatotype tied to your DNA or is it possible to change through lifestyle choices?



The fact that your metabolism is changeable and totally unrelated to your bone structure indicates that it is possible for some to change their somatotype. In our society all of us would have known many people whose body structures changed through the years as they got older. There are males who grew up chubby and were definitely

endomorphs who suddenly transformed to ectomorphs or mesomorphs almost miraculously. Many females grew up skinny and were ectomorphs until the advent of a few children rendered them endomorphs. The six possible types of transformations from one somatotype to another through time would have been observed both in the female and male populations of our society since your body composition of muscle and fat can change over your lifespan. The observed occurrence of people changing from one somatotype to another has caused many researchers and health practitioners to regard the practice of categorizing people into different somatotypes as unscientific and erroneous. It is however indisputable that **it is very difficult for some individuals to gain weight by increasing their muscle or fat masses or conversely for other individuals to lose weight by effectively burning fat from their bodies.** Thus it is fair

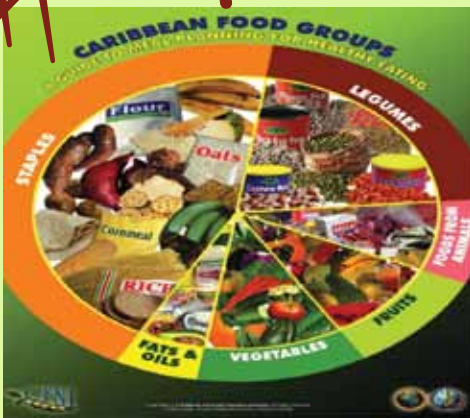
to recognise that we all fit into a particular somatotype but can morph into a different one with time or through specific interventions.

We may classify our bodies as one of the three body types or we may recognise that we possess most of our traits from one main body type and other traits from one or both of the other body types.

It is unwise to pigeonhole yourself into any category and accept that classification as your final fate of reference and therefore refuse to work towards a better alternative. The excuse that you are 'big-boned' or from a family of traditional 'heavyweights' is not a valid reason for you not to try to lose some unhealthy pounds by adopting a healthier lifestyle through diet and exercise. It is equally important for the ectomorphic or mesomorphic health practitioner to recognise that their endomorphic client may be very compliant with all the relevant advice given and yet unable to show any significant improvement in the period under study. We need to recognise, appreciate and indeed accept our difference with respect to somatotypes and be more sympathetic to those clients struggling to change their somatotypes.

MA

Healthy Lunches



Proper nutrition starts from the womb and should continue throughout life.

A healthy child makes for a happy child. Parents, care-givers, and other food-providers, should offer nutritious

and healthy meals to children and young people. Exposing children to a wide variety of nutritious and healthy foods from an early age encourages the development of good eating habits, which can last a lifetime. The Caribbean food groups should be used as a guide for planning meals for children and young people.

Adequate nutrition is essential for proper growth and development. In addition, healthy eating helps to diabetes and hypertension. Many Barbadian children are already overweight or obese, and the numbers continue to rise.

To promote healthier eating habits, all meals for children and young people should include:

More

- Fruits and vegetables
- Foods high in calcium and iron

and less

- Greasy and fatty foods

- Sugar and sugary foods
- Salt and salty foods

Planning healthy lunches

A well planned lunch can provide at least one third of your child's daily nutrients. Preparing healthy lunches does not have to be difficult or time-consuming. With a little thought lunches can be tasty, economical, attractive and nutritious, even when eating away from home.

When planning lunch, or any meal, always try to include foods from each of the six Caribbean food groups. To help meet daily calcium requirements, include dairy or other calcium-rich foods.

A healthy lunch does not mean a boring lunch. Children can still enjoy treats such as a slice of coconut bread, a small bran muffin, one or two cookies, a small pack of chips, or a small scoop of ice cream.

A Basic Look at Nutrition

Nutrition of people relates to the daily intake of food. Nutrition deals with the consumption of food from a nutrient perspective i.e. the consumption of macronutrients: carbohydrates, proteins and fats which are found in various compositions in the six food groups of the Caribbean. These food groups comprise: (1) staples, (2) foods from animals, (3) legumes, (4) vegetables, (5) fruits and (6) fats and oils. Nutritionists determine the appropriate quantities (Food Servings) from each of the food groups which should be eaten on a daily basis to provide sustainable health. Micronutrients are a group of essential nutrients that are also required in the diet but only in tiny amounts. These include the minerals (trace elements): chromium, cobalt, copper, iodine, iron, manganese, molybdenum, selenium and zinc as well as vitamins which are organic compounds. Phytochemicals from plant materials are also important micronutrients. Proper intake of vitamins and minerals is essential in order to have a healthy, productive life. Micronutrient deficiencies can have a profound impact on the body's immune system and can also lead to a host of dangerous diseases.

It is important for everyone to have a balanced diet. A balanced diet consists of specific quantities or servings of foods from each food group based on the nutritional need of the individual as it relates to activity, size, age, sex and health status. The daily consumption of food is generally divided into breakfast, lunch and dinner (supper). Care should be taken to ensure that these scheduled meals provide all the daily nutrients necessary for good health.

Good habits should be fostered in food preparation to reduce the incidence of contamination by germs and other harmful substances that could lead to the contraction and spreading of the many food borne illnesses that exist. Food safety is a scientific discipline describing the handling, preparation,

and storage of food in ways that prevent food borne illness. Food safety includes a number of routines that should be followed to avoid potentially severe health hazards. Food safety is paramount to the preparation of food at all levels.

One critical component to good health is the availability and accessibility of potable (safe to drink) water. In some countries where general sanitation is not properly practiced, sewage disposal is inadequate and results in waste water and refuse contaminating the water supply. This contamination can result in outbreaks of diseases like cholera. The issue of waste management is the concern of governments and good governance should ensure that the national sanitation situation is managed appropriately to prevent the outbreak of diseases.

As a country we need to manage our food security and our food budget. We need to spend our money wisely so that we eat as healthily as possible and avoid any possibility of food shortages and other negative impacts on our national nutritional programme. Remember that healthy individuals make for a healthy nation.

KB



Community Activities Corner

- ▶ Presentations featuring Healthy eating on a budget done at three workshops sponsored by the Ministry of Social Care, Constituency Empowerment and Community Development
- ▶ "Conversation Map" session conducted with the Diabetes Association of Barbados
- ▶ Nutrition presentations in various polyclinics highlighting World Diabetes Day
- ▶ Open day- Edgar Cochrane Polyclinic
- ▶ Presentation at the Barbados Workers Union (BWU) Retirement Workshop
- ▶ Health fair- Tamarind Hotel
- ▶ Presentation at the Selah Primary School
- ▶ Health Fair Presentation – Six Roads SDA Church
- ▶ Presentation – The Lodge School
- ▶ Body Mass Index (BMI) assessments and literature distribution at the Barbados Postal Service's Health Awareness Day
- ▶ Presentation- Winston Scott Chronic Non-communicable Disease Education Group

Training:

- ▶ Bryan Payne recently completed a fellowship in Global Nutrition Policy for Sustainable Development, under the auspices of the Latin American Society of Nutrition (SLAN), World Health Organization (WHO) and Micronutrient Initiative.



The Connection between Sugar Consumption, Hypertension and Cardiovascular Risk

Cardiovascular disease continues to be the number one cause of premature mortality in Barbados and hypertension is its most important risk factor. Despite the best efforts, the epidemic of hypertension continues to increase at an alarming rate. Data from the Barbados Health of the Nation Survey (2012) indicated that 38.9% of the population were hypertensive with males being 40.1% and females 38.1%. As a result of our growing elderly population the number of hypertensive patients is projected to increase significantly. Controlling hypertension through dietary restriction of sodium has been a major focus of public health initiatives. However, the efficacy of sodium-reduction strategies in controlling hypertension remains debatable. The predominant sources of sodium in the diet are from processed foods which are also

a major source of highly refined carbohydrates. These carbohydrates include various sugars and the simple carbohydrates that give rise to these sugars through digestion. Compelling evidence from basic science, population studies and clinical trials implicates the consumption of sugars (particularly the monosaccharide fructose) as playing a major role in the development of hypertension. Table sugar (sucrose) is a disaccharide composed of two monosaccharides: glucose and fructose. Sucrose, as a sweetener, has traditionally been a common ingredient in industrially processed foods and drink but in recent years the cheaper sweetener, high fructose corn syrup (HFCS), has replaced sucrose in many of these foods. It is believed by some researchers that dietary sugars, particularly fructose, pose more of a problem with respect to hypertension

and cardiovascular risks than dietary sodium. Fructose may uniquely increase cardiovascular risk by precipitating metabolic dysfunction, increasing blood pressure variability, increasing heart rate, and increasing inflammation.

The World Health Organization (WHO), while not making specific recommendations about fructose, recommends that added sugars should provide less than 10% of our entire daily caloric intake. WHO further recommends that for optimal health added sugars should provide less than 5% of our daily caloric intake. Therefore no more than 6–12 teaspoons of sugar should be consumed on a daily basis.

Evidence suggests that added sugars (especially those higher in fructose) are a problem and should be targeted more explicitly in dietary guidelines to support cardiovascular and general health. Just as most dietary sodium does not come from the salt shaker most added sugar does not come from the sugar bowl. Therefore limiting the consumption of added sugars by limiting the consumption of processed foods (which contain these sugars) is a good place to start. Moreover, reducing processed-food consumption would be consistent with existing WHO guidelines that focus on reducing the intake of both sugar and sodium.

BP

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Beverages and Smoothies

Carrot Punch

- 4 medium sized carrots
- 4 cups of skimmed milk
- Vanilla essence to taste
- Nutmeg to taste
- Sugar to taste

Method

1. Wash carrots and cut into small pieces
2. Place in a blender with all other ingredients
3. Strain and chill

Serves 6





Eating Healthy on a Low Budget

For many people, the term eating healthy means having a large food bill. However, this does not have to be the case. Listed below are 10 tips on eating healthy on a budget.

1

Buy vegetables and fruits that are in season: these foods are usually in abundance and cheaper. Where possible buy them in bulk and blanch and freeze for later use.

2

Look for sale items: supermarkets may have specials on foods due to them being in glut or are close to their sell-by date. Plan meals around these sales and save. In addition, make sure to sign up for any savings cards stores are offering.

3

Use less-expensive cuts of meat: bone-in, skin-on, tougher cuts of red meat, and organ meats are cheaper yet nutritious. Using a crock pot is useful for reducing fuel cost for tougher cuts of meat.

4

Use more legumes (peas and beans): these are cheaper sources of protein that can be used instead of poultry, fish or meat. Legumes can also be added to soups and stews to increase bulk while cutting back on expensive meat or poultry.

5

Meal planning and preparation: this is a step in the right direction when on a budget as it is a good way to use up what is in the fridge/freezer and reduce wastage. Planning meals can also mean taking to work lunch instead of buying lunch thus further reducing food cost.

6

Broaden your culinary horizons: try using half ground beef/turkey and half soy mince or black beans to make dishes such as lasagna and shepherd's pie. Make use of rechauffe (leftovers) wherever possible. Leftovers do not have to be the same meal as the one you had before. Be creative and use leftover vegetables, chicken, meat and fish in soups, salads and wraps. Leftover vegetables and meat/chicken can be stir-fried with pasta or used in sandwiches.

7

Buy directly from the farms: harvesting your own food from the farm can save you money. Many plantations offer ground provisions e.g. potato and yam for sale by the rod. You can also pick peas/beans, dig cassava and buy other vegetables wholesale from the farms.

8

Eat out less often: this saves you money that can go towards buying healthy foods to prepare at home.

9

Reduce unhealthy snacking: avoid sugary, fatty, salty snacks and replace these with cheaper healthier fruits, nuts and yogurt.

10

Use a grocery list: prepare a grocery list with the items you need: when you shop without a grocery list you are likely to select items that you don't need and thus spend more than you intended to spend. AG

What's the difference between a nutritionist and dietitian?

Nutritionists and dietitians are both food and nutrition experts. They've studied how diet and dietary supplements affect your health. Both are considered to be healthcare professionals, but the two titles shouldn't be used interchangeably.

The key difference between a nutritionist and a dietitian is that a dietitian has specialised training in clinical nutrition, medical nutrition therapy and food service management while nutritionists focus on the scientific aspect of nutrition, how food works in the body, how the environment affects the safety and quality of foods and what influences these factors have on health and disease.

Both dietitians and nutritionists can be found in university settings, where they may teach, do research or focus on public health issues.



Do nuts contain cholesterol?

Nuts do not contain cholesterol and, in fact may help to lower serum cholesterol. Nuts are packed with protein, fibre, healthy monounsaturated fats, vitamins, minerals, and antioxidants. Unless you are allergic to nuts they may be included in every healthy diet.

Note that nuts are high in calories and should be eaten in moderation – a handful daily is enough. Peanuts, almonds, pistachios and walnuts are amongst the most healthful.



Frequently

Asked

Questions

What's the difference between a serving and a portion?

A "serving" is a scientifically determined amount of food whereas a "portion" is the amount of a food you choose to eat at any one time, which may be more or less than a serving. It's important to recognise this difference since Nutrition Facts labels give nutrition information based on a single "serving" and not necessarily the whole container.

If you are suffering from high serum cholesterol should you eat eggs?

Most people are surprised to learn that cholesterol in food has little effect on blood cholesterol. In fact, it is saturated fat and trans-fat that are the real problem.

This means that cholesterol-rich foods, like eggs, are not forbidden. Daily cholesterol limits are 300 mg for most people and 200 mg for those at risk. One medium-sized egg contains about 170 mg of cholesterol so you can eat one to two eggs per day but watch the amount of added fat (butter, margarine and oils) when frying or scrambling.

SNACKS

Fruit Salad

- | | |
|------------------|--------------------------|
| 1 apple (washed) | 1 banana (ripe and firm) |
| 1 orange | ½ pawpaw |
| 1 lime | |
| Cherries | |

Method

1. Squeeze lime and reserve juice
2. Remove skin and pith from orange
Separate into segments
1. Cut apple into quarters and remove core. Slice thinly
2. Skin and slice the banana
3. Mix all fruits in a large bowl
4. Sprinkle with lime juice
5. Serve chilled

GREEN BANANA PUDDING

- 3 cups grated green bananas
- ¼ tsp vanilla essence
- 6 Tbsp sugar
- 1 Tbsp flour
- ½ Tsp nutmeg
- 2 Tbsp og grated coconut for decoration
- ½ cup coconut milk
- 1 egg
- 1Tbsp margarine
- 2 Tbsp raisins
- Pinch of salt

Method

1. Add ¼ cup milk to grated bananas. Beat until smooth
2. Add remaining ingredients and blend well
3. Pour into greased dish. Bake 30 minutes at 350°
4. When cool decorate with grated coconut and cherries

Understanding Constipation

What is a Bowel Movement?

The bowel is the last portion of your digestive tract and is sometimes called the large intestine or colon. The digestive tract as a whole is a hollow tube that extends from the mouth to the anus. Food is digested in the mouth, stomach and small intestines and the product of digestion absorbed into the blood. The undigested material ends up at the bowels where water and salts are absorbed. The semi-solid material that remains is called faeces (stool) and exits the body as a bowel movement.

What is Constipation?

Constipation, also called irregularity, is having difficult or less than normal bowel movements. Many people erroneously believe that regular bowel movements mean that you must defecate (move your bowels) every day. However, everyone's bowel movements are unique to them, and what is regular for one person may not be regular for another. The frequency of a healthy bowel movement may be one to three times a day (at the most) or three times a week (at the least). These are all considered to be normal or regular, as long as that is your established pattern. A higher or lower frequency may be considered as abnormal and classified as constipation but may still not be a cause for alarm. Constantly having less than one bowel movement per week constitutes a severe case of constipation. Anyone who has ever suffered with constipation would know how painful and frustrating it can be, not to mention embarrassing if accompanied by long periods of struggle in the bathroom or vile smelling flatulence.

Causes of Constipation

Constipation can be attributed to at least one of the following factors:

- Bowel disease
- Side effects of some medication
- Lack of exercise
- Voluntary retention of stools
- Poor eating habits
- Not enough fluids or water in the diet
- Stress

Prevention of Constipation

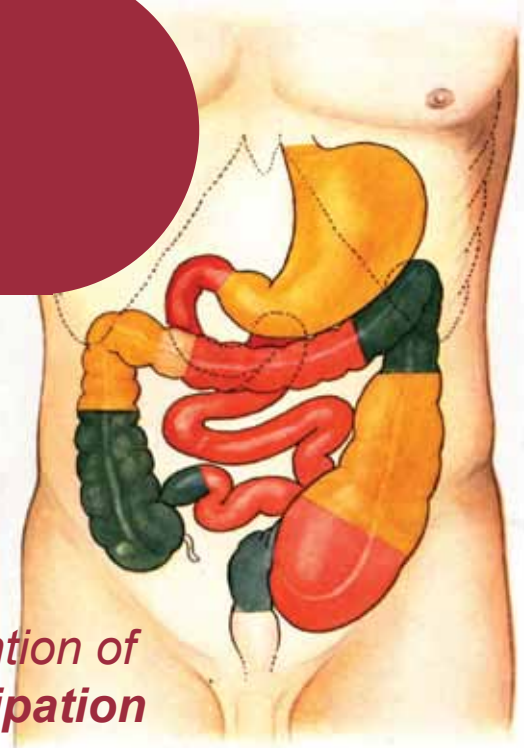
Most of the time, constipation may be prevented or alleviated through simple dietary or lifestyle changes. Having a healthy diet is key for preventing constipation. Persons who suffer from constipation should make sure, first of all, that they are eating enough. It is interesting to note that some people, who have trouble getting things out, don't put enough in, in the first place.

Foods that may alleviate constipation include:

- Raw vegetables
- Fresh or dried fruit (with the skin on if possible)
- Legumes (dried peas, beans and nuts)
- Whole grain foods (oats, cornmeal, unrefined rice, whole wheat)
- Ground provisions
- Popcorn
- water

Persons who suffer with constipation should also:

- Avoid diets which are low-carb and high in animal protein foods
- Drink warm water first thing in the morning
- Use yogurts which contain live bacteria cultures
- Drink soups, vegetable juices and fruit juices; if possible, eat the whole fruit or vegetable since these provide more roughage
- Reduce the intake of alcohol or large amounts of caffeine since these can lead to dehydration
- Drink as much water as possible every day in place of sweetened drinks
(DB)



Nutritional Advice for Our Senior Citizens

Good Nutrition is important at every stage of life for the prevention and management of diseases. During the older years, nutritional status is often affected by the various physical changes occurring in the body and the presence of disease. It is therefore important that every effort be made by these individuals or their caregivers to ensure that a healthy diet is obtained and that nutritional needs are met.

The National Nutrition Centre has established the following dietary guidelines for our adult population with the aim of promoting good health. Older persons are therefore encouraged to adopt these dietary recommendations as part of a healthy lifestyle.

- Enjoy a variety of foods every day
- Eat vegetables every day
- Eat fruits every day
- Use high fibre foods every day

- Choose to eat less fat and fatty foods every day
- Use less salt and high sodium foods
- Use less sugar, sugar containing foods and sweet beverages
- Engage in regular physical activity

At times, additional nutrition recommendations may be needed due to the physiological changes seen in this population and the presence of disease. Common physiological changes include loss of lean body mass and increased body fat which often results in a decrease of physical strength, changes in mobility and an increased risk for chronic non-communicable diseases.

Sensory changes affecting taste, smell, sight, hearing and touch can occur. There may also be specific oral and gastrointestinal changes that may occur. These changes could

lead to an inadequate food intake or the consumption of unsafe food. As a result, modifications may need to be made to food textures, meal preparation and the manner in which meals are served.

Financial challenges as well as limited social contact can also affect the nutritional status of this population and should be considered before recommendations are made. It is therefore important to have nutritionists and dietitians working along with the health care team, to help address the various nutrition-related needs, in an effort to promote health and enhance the quality of life. The elderly and their caregivers should obtain a good understanding of individual dietary recommendations by consulting with the nutrition professional assigned to their health care team.
GT

KID'S CORNER HOME GROWN FOODS

You can save money, and have fun outdoors, when you grow your own vegetables, herbs and fruits. Complete the puzzle and get some ideas for foods you can grow at home.



Across

1. A SALAD GREEN
3. USED TO MAKE CONKIES
6. RED, ORANGE, YELLOW OR GREEN
8. USED IN COU-COU
9. PURPLE PEAR-SHAPED VEGETABLE

Down

2. RED - FOR SALAD AND GRAVY
3. CHRISTMAS PEAS
4. LOCAL APPLES
5. USED TO FLAVOUR FOODS
7. HERB USED IN SEASONING

The Caribbean Food Groups

O L X C S Y X V M L F L C H S
 Q G S V H S B F P S P Q T D M
 E N N E E I Y U R P A R O S A
 T G I A M G C B T H I O I L R
 S S B T M U E K W Q F D N A G
 A L O R K U G T E L Z O S F A
 K I D N E Y B E A N S A S R R
 R T G S D P H M L B R X T U I
 C N B N O C I E L D L O A I N
 T E W T A N C U I U H E F T E
 I L A N A I D N V H N M S S G
 D T I B R V E S E L P A T S M
 O P T J T S P U M P K I N J S
 S F T W Q M J E A N A N A B K
 I G H A V A S D U O W J A E J

ANIMALFOODS	BANANA	CHICKEN
FATS	FRUITS	KIDNEYBEANS
LEGUMES	LENTILS	MANGO
MARGARINE	OIL	POTATO
PUMPKIN	RICE	SARDINES
SPINACH	STAPLES	VEGETABLES

