

sed Your Mithochondira the Stuff You Deservel MyMito Feed Your Mithochondira the Stuff You Deservel My



## DID YOU ASK YOURSELF?

... Why do we eat?

... What happens to the food that we eat?

... What is good for ourbody

... What keeps us healthy





How does food make you feel?

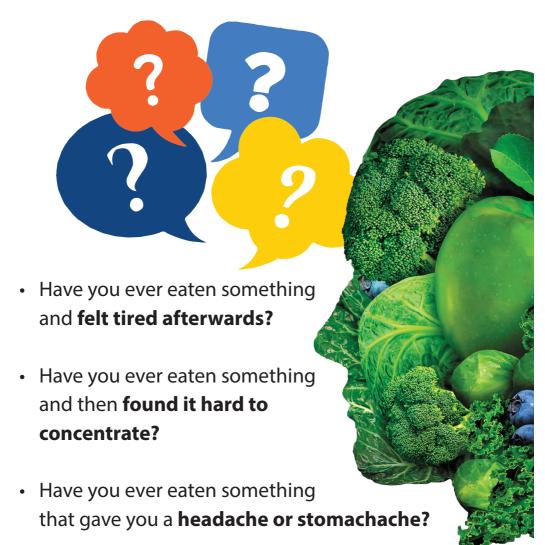
# HOW does your food make you FEEL?



#### Circle the feeling that you get after eating your food







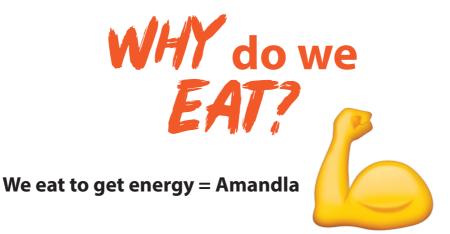
What food makes you feel the best?





## CHAPTER TWO





\* This energy is not stored in the food, it's your Body that makes the energy out of the food you eat! = umzimba usebenzisa ukutya esikutyayo ukwenza amandla esiwadingayo emizimbeni yethu.





## HOW do we get ENERGY?

#### It starts with our cells



#### What is a cell?

- Cells are the basic building blocks of our body and each body is made out of trillion of cells
- Cells= ama joni omzimba = soldiers of the body
- These soldiers need energy to work properly







#### Inside each cell live many **mitochondria** - let's call them mitos!

#### What is a mito?

- The mito is a tiny organ and it has one job: produce energy for the cell that it is living in
- Mitos use the food that you eat to make this energy







## HOW do we get ENERGY?

#### Lets take for example a cell phone battery?

- The mito is the battery of your body cells, and your cells need it to gain energy
- just like your cell phone needs it's battery to charge and have energy
- It produces the energy for your cell, that's how your cells and your body can function properly

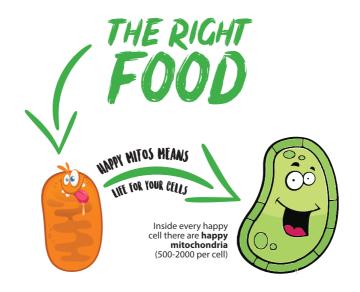
















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## CHAPTER THREE

What happens to the food we eat?

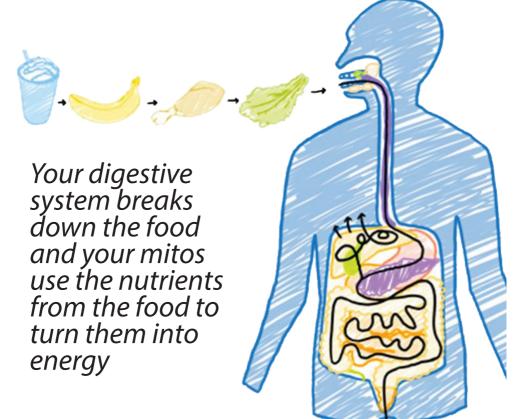
# WHAT happens to the FOOD WE EAT?

You CHEW

You SWALLOW

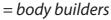
You DIGEST





#### **Nutrients**

- = good parts of the food that keep us healthy
- = izakhamzimba









FATS



WATER



VITAMINS & MINERALS



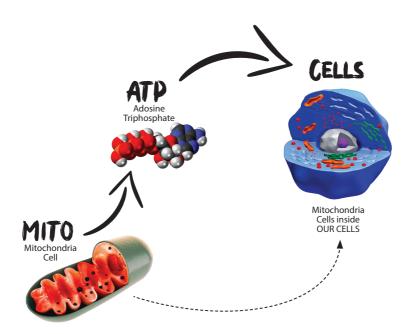










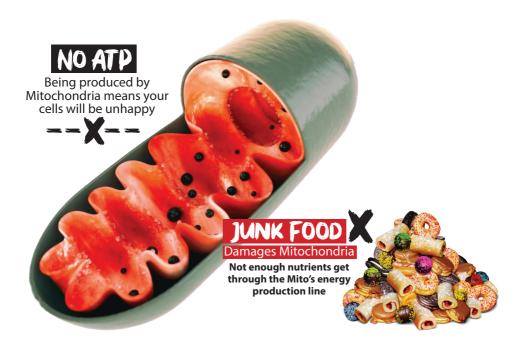


- The energy is called ATP( Adosine Tri-Phosphate)
- Mitos need a lot of good nutrients to produce ATP
- When your cell has ATP it can do what it needs to

If Mito's don't work, our cells won't have the energy to work and do their jobs



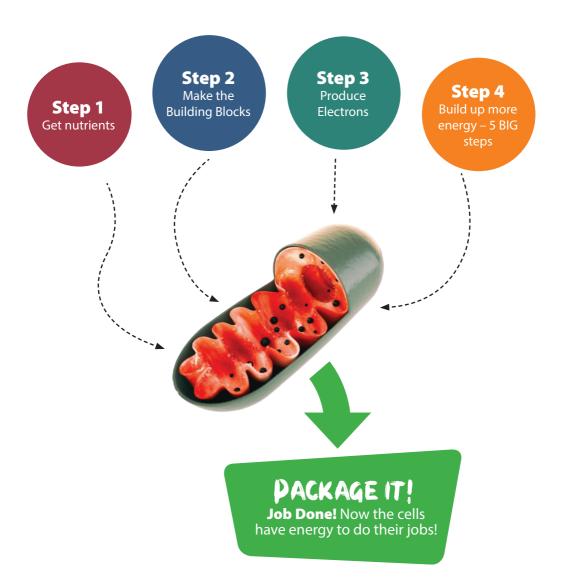




#### Think of a car production factory....

- A car can only function if it has all parts.
- And your mitos can only produce energy if they get all the healthy nutrients.
- If Mito's don't work, our cells won't have the energy to work and do their jobs.



















# Feel free to **take some notes**



## CHAPTER FOUR

What keeps our Mitos healthy?

## WHAT keeps our MITOS HEALTHY?

#### Your mitos need



- Lots of veggies of every colour
- A small portion of starch at each meal: like a sweet potato, rice, oats, maize.
- An Average portion of Proteins: from eggs, meat, pilchards, chicken, beans.
- Lots of Good fats: from your eggs butter, avocado and nuts.



#### YOUR MITO FOOD PYRAMID

Making healthy food choices should not be difficult, always choose real food, vegetables, any animal products and good fats. If you can avoid anything that comes in a box or packet, do so. Free range meat or game is a first choice, if not, just don't eat the fat on the meat. Frozen vegetables are your 2nd choice, but preferably fresh.



Vegetables contain special plant nutrients called phytonutrients which give the vegetables their colour. The phytonutrients are anti-cancer, anti-inflammatory and anti-oxidant and keep us healthy. Eat a rainbow of colours as often as possible

#### BEWARE DIET DISASTERS

The damaged fats used in fast foods inflame your blood vessels and brain and age you before your time. Combine this with sugar and it is a double burden on the body.

Over processed foods like cereals, sugar laden foods like soft drinks, flavoured yogurt and energy drinks are not part of a good diet.



Foods like cabbage, cauliflower and broccoli all contain sulphur which is essential for detoxification



Also Healthy Fats from Nuts and Seeds, Egg Yolk and Sardines















No additives, all nutrients are there

#### Frozen food

Most nutrients are there

#### Canned food

Few nutrients are there

#### Processed food

No nutrients, lots of chemicals (Usually in a box, jar or packet)





- Sugar does not give you energy!
- Too much sugar makes the Mitochondria unhappy, and affects your energy production, this can make you feel miserable







# Feel free to **take some notes**



## CHAPTER FIVE



#### **PROCESSED** Food

### EXAMPLES OF PROCESSED FOOD:

Noodles
Energy drinks
Chips
Buiscuits

#### What is **unhealthy** about processed food?

- Processed food can stay on a shelf for years.
- There are many chemicals inside the food in order to keep it eatable.
- Most of the time there is a lot of sugar in it as well.
- Processed food will stress your mitos!

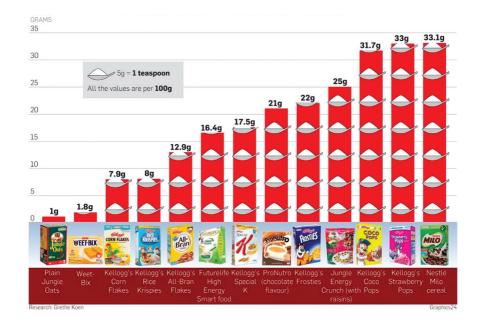




#### Let's look at **cereals** as an example of processed food...

#### **CUGAR-LOADED CEREALS**

Although they punt themselves as a healthy, easy breakfast option, cereals are loaded with sugar. A 100g bowl of Milo cereal, for example, has about the same amount of sugar as a chocolate bar







#### GOOD FOOD VS BAD FOOD

Identify Good and Bad food for your Mito

| Good Food | Bad Food |
|-----------|----------|
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#### Feed your Mitochondria!

Know where your food comes from!

No Processed Foods!

No Additives!

### **YOUR HEALTHY**Mito Guidelines

Eat like your ancestors did!

Real Food only!

No Added Sugar!

Love the Mito Food Pyramid





## **EXERCISE**: My Mito Meal for a day

Now that you have a bit of information about healthy food and how to feed your mito, create your own healthy Mito Meal for a day.

| BREAKFAST     | <br> | <br> |   |
|---------------|------|------|---|
|               |      |      |   |
| <u>LUNCH</u>  |      |      |   |
|               | <br> | <br> |   |
|               |      |      |   |
| SNACK         | <br> | <br> |   |
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| <b>SUPPER</b> | <br> | <br> |   |
|               |      |      |   |
|               |      |      |   |
| BEVERAGES     |      |      |   |
|               |      |      |   |
|               |      |      |   |



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## CHAPTER

**MyMito Quiz** 

| 1.         | What is a Mitochondria?  |
|------------|--|
| 2.         | Give two examples of food that gives us energy                         |
| 3.         | Give examples of the following - Vitamins - Minerals - Proteins - Fats |
| 4.         | What is ATP?   |
| 5.         | What is the effect of sugar into our Mitochondria?                     |
| 6.         | Give an example of a balanced breakfast                                |
| <i>7</i> . | Draw a picture of a mito   |





# Feel free to **take some notes**





#### Glossary of terms

- **Healthy/Empilweni** In a good physical or mental condition
- **Energy/Amandla** The strength and vitality required for sustained physical or mental activity.
- **Bloated** Swollen with fluid or gas.
- **Concentrate** Being able to focus all one's attention on a particular object or activity.
- **Cell** The smallest structural and functional unit of an organism.
- **Mitochondria/(Mito)** An organelle found in large numbers in most cells, in which the biochemical processes of respiration and energy production occur.
- Tiny/Ncinci Very small
- **Organ** A part of an organism which is typically self-contained and has a specific vital function.
- **Produce** Create or form (something) as part of a physical, biological, or chemical process.
- **Digestive** Relating to the process of digesting food.
- **Nutrients** A substance that provides nourishment essential for the maintenance of life and for growth.
- Adenosine Tri Phosphate A compound consisting of an adenosine molecule that is present in all living tissue.
- Starch An odourless, tasteless white substance occurring widely in plant tissue and obtained chiefly from cereals and potatoes.
- Proteins a class of nitrogenous organic compounds which have large molecules composed of one or more long chains of amino acids
- **Processed** To perform a series of mechanical or chemical operations on (something) in order to change or preserve it.
- **Chemicals** A distinct compound or substance, which has been artificially prepared or purified.



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