



EXERCISE:
Your Way To A Healthy Life

PREFACE

Exercise is simple to do. It helps to lower your risk of high blood pressure, diabetes and protects you against heart attack and stroke. Regular exercise burns fat and helps you to become trim, fit and looks good.

Keeping fit and healthy through exercise means you have -

- **Strength :**
to pull, push and lift-up loads without difficulty or hurting yourself.
- **Stamina :**
to sustain any daily activity you do without being tired and fatigued.
- **Flexibility :**
to help you bend, twist and stretch in your daily work without straining yourself.



CHECK WITH YOUR DOCTOR IF YOU :

- are above 35 years old and have never been exercising regularly
- not sure of your health status / condition
- have previous medical history of heart disease, lung problems, fits
- are overweight or obese

WHAT IS YOUR RISK?

RISK				
Risk Factor	0	1	2	Score
Smoking	Do not smoke	1-15 cigarettes a day	More than 15 cigarettes a day	
Blood Cholesterol level	Less than 220 mg/dl	Between 220-260 mg/dl or do not know	More than 260mg/dl	
Body weight	Ideal body weight	Overweight	Obese (20% or more than ideal body weight)	
Exercise	At least 20 minutes, 3 times a week at the recommended target pulse rate	1 - 2 times a week	Sedentary, seldom exercise	
Stress	Cheerful, calm, satisfied	Usually in a hurry, worry, impatient	Always in a hurry, aggressive, competitive	
Blood pressure	Normally less than 140/90	140 - 159 90 - 104	High, 160 105 or more	
Diabetes	Not a diabetic	Diabetic among family members	Diabetic	
History of heart disease in the family	None before 60 years old	Heart disease before 60 years old	-	
Age	Below 40 years	40 - 60 years	Above 60 years	



Score guide	Risk	Your Action
0 - 2	Low	Maintain a healthy lifestyle
3 - 5	Moderate	See your doctor for a medical checkup and take appropriate steps to reduce your risks
6 - 9	High	
10 or more	Take care	

GOALS FOR LIFESTYLE CHANGES

- Reduce body weight
- Improve cardiovascular fitness
- Improve strength and muscle tone
- Improve flexibility
- Reduce physiological age
- Stop smoking
- Reduce stress and tension
- Reduce blood cholesterol
- Control high blood pressure
- Modify daily diet



PERSONAL DATA

1. Height : cm
2. Body Weight : kg
3. Waist : cm
4. Hips : cm
5. Ideal body weight : kg
6. Body Mass Index :
7. Resting pulse rate : b/m
8. Maximum pulse rate : b/m
9. Target pulse rate : b/m
10. Recovery pulse rate : b/m
11. Age : years
(According to date of birth)
12. Physiological age : years
13. Physical fitness level :
14. Blood pressure :
15. No. of cigarettes smoked per day :

GUIDELINES TO EXERCISE

Warm-ups (5 minutes)

Such as simple callisthenics or stretching to prepare the body for more vigorous exercise. Warming-up the muscles and joints will reduce the risk of injury during exercise.



Aerobic Exercise

(20 - 30 minutes)

Stimulate the entire body, provided you do it long enough (20 - 30 minutes) at least 3 to 4 times a week to maintain fitness. Activities often recommended include brisk walking, jogging, bicycling, skipping, swimming, basketball or badminton.



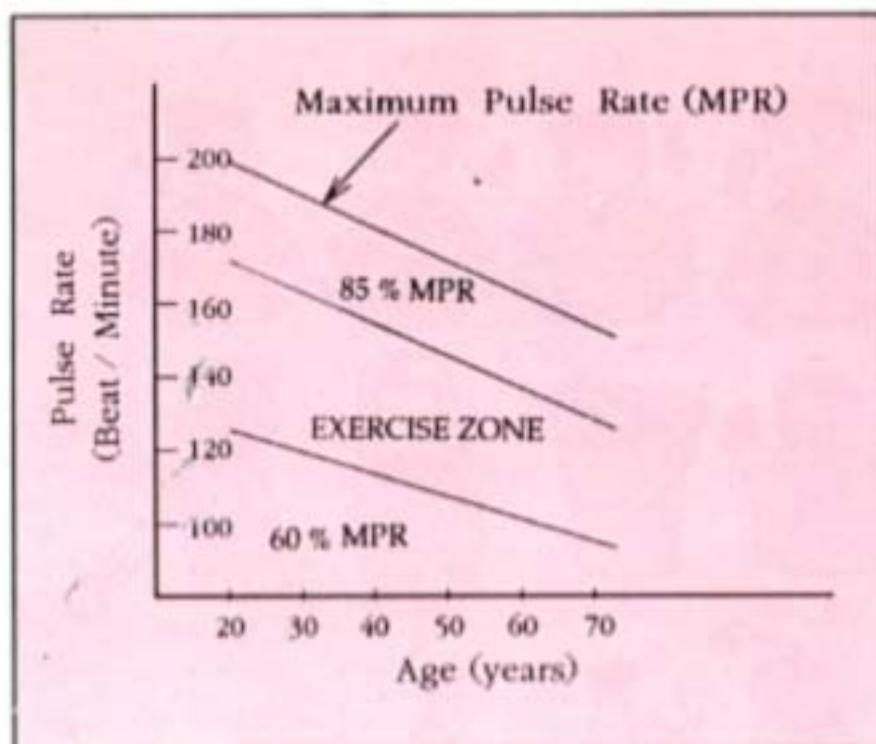
Cool-down Exercise

(5 minutes)

Are similar to warm-ups. It safely eases your body to a lower level of activity following an aerobic workout. It helps to prevent injury and body aches. Cooling down allows your heart to return to the resting rate after an aerobic exercise.



EXERCISE ZONE



- ◆ Monitor your pulse rate to determine that you are exercising at a level which is effective and safe.
- ◆ Your maximum pulse rate is "220 minus your age".
- ◆ Exercise at about 60% - 85% of the maximum pulse rate.
- ◆ Determine your initial target rate and increase it slowly.



STRETCHING EXERCISE

STRETCHING YOUR MUSCLES



1. 1a, 1b and 1c.
Stretching of neck muscle.
2. Stretching of shoulder and upper back.
3. Stretching of triceps and shoulder.
4. Stretching of upper back and arms.
5. Stretching of arm, shoulder and chest.
6. Stretching of side of the body, arm and hip.
7. Stretching of back muscles.
8. Stretching of quadriceps.
9. Stretching of thigh hamstring and back of knee.
10. Stretching of quadriceps /knee.
11. Stretching of groin, thigh and hip.
12. Stretching of inner side of thigh.

STRETCHING EXERCISE

Proprioceptive Neuromuscular Facilitation Movements



Side



Arm and Shoulder



Arm and Shoulder



Lower Back



Lower Back and Hamstring



Hamstring



Groin

Stages of Exercise

Week Distance (km) Time (minutes) Frequency per week

Aged below 30 years

1	3.3	34.00	3
2	3.3	32.00	4
3	3.3	30.00	5
4	4.2	38.00	5
5	4.2	37.00	5
6	4.2	36.00	5
7	5.0	45.00	5
8	5.0	44.00	5
9	5.0	43.00	5
10	5.0	42.00	4

Aged between 30 - 50 years

1	3.3	36.00	3
2	3.3	34.00	3
3	3.3	32.00	4
4	3.3	30.00	4
5	4.2	39.00	4
6	4.2	38.00	5
7	4.2	37.00	5
8	5.0	46.00	5
9	5.0	45.00	5
10	5.0	44.00	4

Aged above 50 years

1	1.6	20.00	4
2	2.5	30.00	4
3	3.3	40.00	4
4	3.3	38.00	4
5	3.3	36.00	4
6	3.3	34.00	4
7	4.2	42.00	4
8	4.2	40.00	4
9	4.2	38.00	4
10	5.0	47.00	4

* Extracted from AEROBIC

AEROBIC EXERCISE

JOGGING

Stages of Exercise

Week Activity Distance (km) Time (minutes) Frequency per week

Aged below 30 years

1	Walking	3.3	32.00	3
2	Walking	5.0	48.00	3
3	Walking/Jogging	3.3	26.00	4
4	Walking/Jogging	3.3	24.00	4
5	Jogging	3.3	22.00	4
6	Jogging	3.3	20.00	4
7	Jogging	4.2	25.00	4
8	Jogging	4.2	23.00	4
9	Jogging	5.0	30.00	4
10	Jogging	5.0	27.00	4

Aged between 30 - 50 years

1	Walking	3.3	34.00	3
2	Walking	4.2	42.00	3
3	Walking	5.0	50.00	3
4	Walking/Jogging	3.3	25.00	4
5	Walking/Jogging	3.3	24.00	4
6	Jogging	3.3	22.00	4
7	Jogging	3.3	20.00	4
8	Jogging	4.2	26.00	4
9	Jogging	4.2	25.00	4
10	Jogging	5.0	34.00	4

Aged above 50 years

1	Walking	1.6	18.00	5
2	Walking	3.3	36.00	4
3	Walking	5.0	54.00	3
4	Walking	5.0	52.00	4
5	Walking/Jogging	3.3	26.00	4
6	Walking/Jogging	3.3	24.00	4
7	Jogging	3.3	22.00	4
8	Jogging	3.3	20.00	4
9	Jogging	4.2	25.00	4
10	Jogging	4.2	25.00	4

REMEMBER ... SAFETY GUIDELINES

Precautions Before Exercising

- Consult your doctor if you :
 - are over 35 years (male) or over 40 years (female) and have not been exercising regularly.
 - are uncertain of your health.
 - have health problems such as high blood pressure, diabetes, heart disease or have more than one risk factor for heart disease.
- Do not exercise when you are sick or are feeling unwell.
- Choose an exercise which you can do easily according to your capabilities.
- Do not exercise within 2 hours after eating.
- Dress appropriately and comfortably for the type of exercise you want to do.
- Exercise correctly. Do not forget ...
Take time to warm up before exercising and always cool down after exercising
- For exercise to be effective, ensure that you.
 - exercise at least 3 - 5 times a week.
 - exercise at the target pulse rate for 20 - 30 minutes without interruption.
 - Do aerobic exercise such as brisk walking, jogging, swimming, bicycling, aerobic dancing and stair climbing.



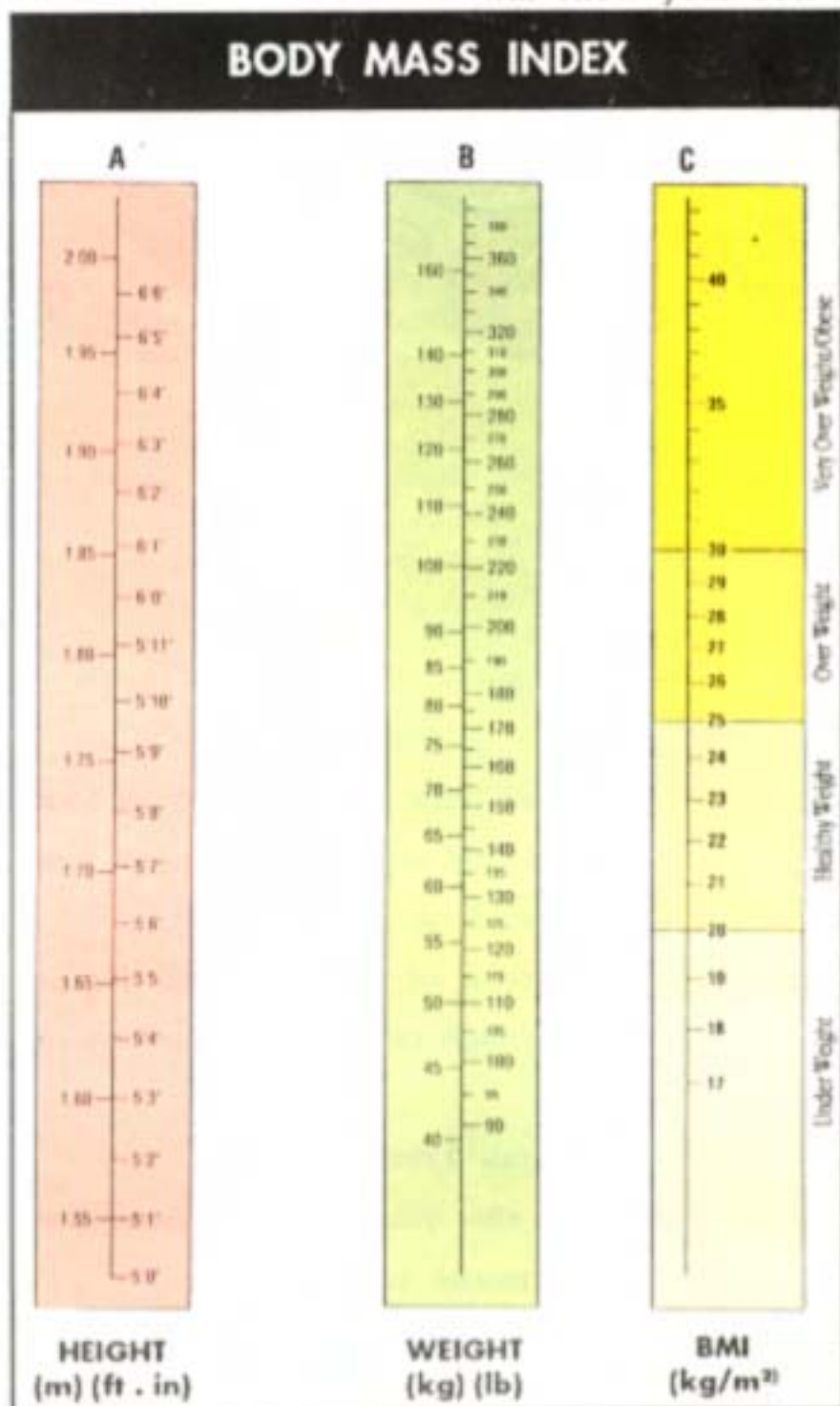
Nutrition For Health



- Choose from a wide variety of food.
- Avoid fatty and high cholesterol food.
- Choose food high in fibre.
- Be careful of salt and sugar intake.
- Avoid high calorie snacks in-between meals.
- Eat your breakfast slowly.
- Look after your weight by controlling the amount of food eaten.
- And don't forget ... EXERCISE.

KNOW YOUR WEIGHT

Health experts use a scientific measure called the Body Mass Index (BMI) to find out whether your weight is healthy. To make it easy, here is a chart that will show your BMI in 4 easy steps.



1. Mark an X at your height on Scale A.
2. Mark an X at your weight on Scale B.
3. Draw a line to join the two Xs.
4. Extend this line to Scale C. Where the line meets Scale C is your BMI.

You can also calculate your BMI where

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)} \times \text{Height (m)}}$$

The healthy range for BMI is 20 to less than 25

If your BMI is	You are
Less than 20	Underweight
20 - less than 25	Healthy weight
25 - less than 30	Overweight
30 or more	Very overweight / Obese

The BMI is only for adults aged 16 - 64 years - i.e. those whose body size and composition are fairly stable.

CONTROL YOUR FOOD

To add on calories
Type of food that supplies 100 Calories *

CEREALS

Rice	- ½ cup
Fried Rice	- ⅓ cup
Mee Soup	- 1 cup
Fried Meehon	- ⅓ cup
Wholemeal bread	- 1½ pieces
Biscuit, plain	- 4 pieces
Biscuit, sweet	- 1 piece
Cornflakes	- 1 cup
Sponge cake	- 1 slice
Fried banana	- ½ piece
Kuih Lapis	- 1 piece
Pulut Panggang	- 1 (small)
Roti Canai	- ⅓ plate size
Rice flour	- 4 tablespoons

FISH / MEAT

Fried Fish (Selar)	- 1
Fish (tenggiri)	- 1 (usual size)
Chicken curry	- 1 scoopful (small)
Rendang Daging	- ½ scoopful (small)

BEANS

Ground nuts (fried)	- 20 pieces
Cashew nuts	- 10 pieces
Taufoo	- 1 piece

* Estimated energy content

FRUITS

Banana	- 1 (big)
Papaya	- ½ (size of coconut)
Watermelon	- ½ (size of coconut)
Starfruit	- 1 (big)
Apple	- 1 (big)
Rambutan	- 10
Durian	- 2 seeds (big)

TUBERS

Tapioca	- ½ cup
French Fries	- 1 fistful

DRINKS

Sugar cane	- 1 cup
Coconut	- 2 cups
Carbonated (Coke, 7-up)	- 1 glass
Milo	- 4 tablespoons

SWEETS

Sugar	- 7 tablespoons
Chocolate	- 1½ pieces small
Honey	- 1½ tablespoons

MILK AND ITS PRODUCTS

Fresh milk	- ½ glass
Milk powder	- 2 tablespoons
Cheese	- 1 piece

EGG

Boiled	- 1½ (small)
Fried	- 1 (small)

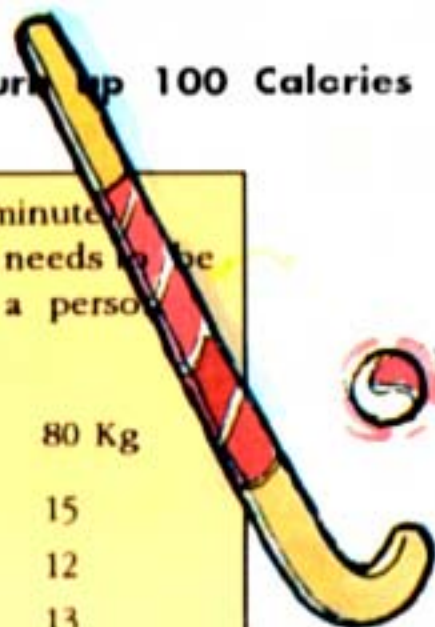
OTHERS

Bubur -ca-ca	- 1 bowl (small)
Chendol	- 1 bowl (small)

TO BURN UP 100 CALORIES

Time period of each activity to burn up 100 Calories

Games/Exercises	Time period (minutes) that the activity needs to be carried out by a person weighing.	
	50 Kg	80 Kg
Badminton	26	15
Basketball	20	12
Bowling	20	13
Golf	34	21
Squash	15	10
Ping Pong	36	22
Tennis	20	13
Swimming (18m/min)	29	18
Volley Ball	26	15
Foot Ball	16	10
Dancing	32	21
Aerobic Dancing	23	15
Gardening	38	23
Walking (6.4 km/hr)	22	14
Jogging (8.8 km/hr)	13	8
Running (11.2 km/hr)	10	6
Bicycling (8.8 km/hr)	27	17



* The Partnership Diet Program - Brownell KD, Energy, Work & Leisure - Dumin JVGA and Passmore R.

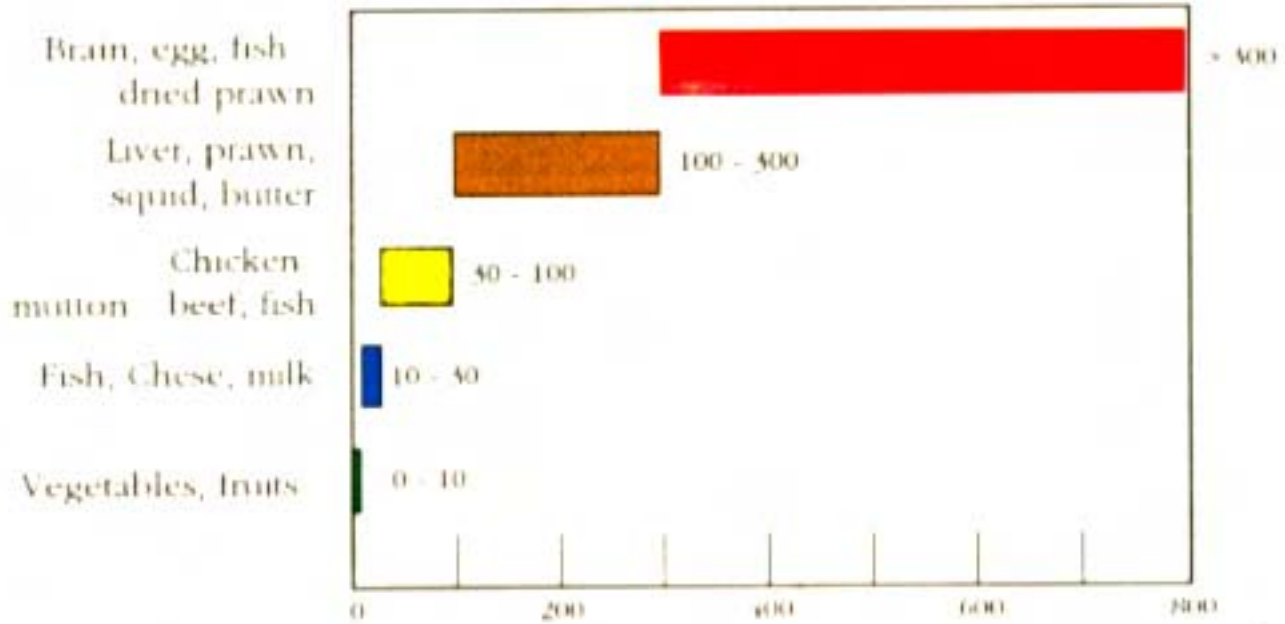
CALORIES BALANCE

If you intend to lose weight ...

- i) Lose not more than 1kg (= 3500 Calories) per week ... i.e. 500 Calories per day.
- ii) How ...
 - control food intake by taking in 250 Calories less per day.
 - exercise to burn up 250 Calories per day.
- iii) Persevere until you have reached your ideal body weight.

Adding Calories ...		Burning Calories !!! ...	
Calories	Type of Food	Distance (km) to be covered (Rate 9 minutes/km) to burn calories if ...	
		Body weight 50 kg	Body weight 80 kg
7	Milk (10 ml)	0.1	0.1
15	Sugar (1 tablespoon)	0.2	0.1
33	Boiled Egg (1) Wholemeal Bread (1 piece)	0.5	0.3
100	Kuih Lapis (1 piece) Fried Egg (1) Fish (Tenggiri) (1 piece) Chicken Curry (1 small scoop)	1.4	0.9
150	Coke / 7-Up (1 bottle)	2.1	1.3
200	Rice (1 cup)	2.8	1.8
300	Fried Meehoon (1 cup) Roti Canai (1 piece)	4.3	2.7

CHOLESTEROL CONTENT IN FOOD



mg per 100g food (edible portion)



Very High



High



Moderate



Low



Very Low





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