



# A LOOK INTO HYPERTENSION

Understanding and Managing  
High Blood Pressure

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# PREFACE



Living in a fast-paced world and juggling between work and personal life, it is apparent that taking good care of our health has become an increasingly difficult task.

We are constantly introduced to the latest health fads - Mediterranean diet, ketogenic diet and HIIT (high-intensity interval training) - just to name a few. It may sound overwhelming to master them all, so why don't we take a step back and start with the basics?

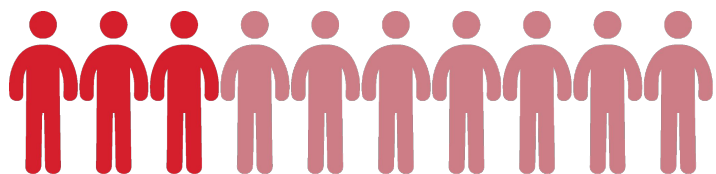
In this booklet, let us explore a fairly simple yet highly important topic - Blood Pressure.

Join me, BP  
as we learn more  
about this topic!



# TOPIC 1

## IMPORTANCE OF BLOOD PRESSURE SCREENING



**3 in 10**

or **6.4 million people**  
in Malaysia have  
hypertension

(Source: National Health and Morbidity Survey 2019)

Did you know that **high blood pressure can increase the risks of heart, brain, kidney and other serious diseases?**

This is why regular screening for high blood pressure is crucial. When detected early, it will be easier to manage the condition with lifestyle changes, and if needed, with medication.

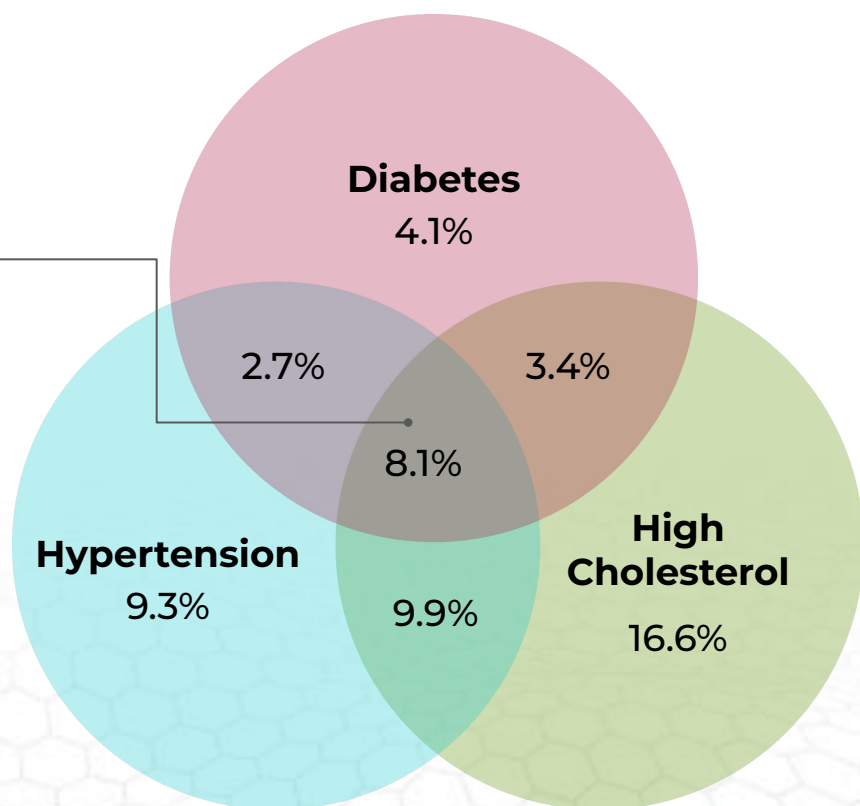
In 2019, it was reported that **30%** of people in Malaysia suffer from hypertension. Worryingly, only half of them were aware that they have high blood pressure.

Concurrently, many of them have diabetes and high cholesterol as well.

**1.7 million people** in Malaysia currently live with **three major risk factors**

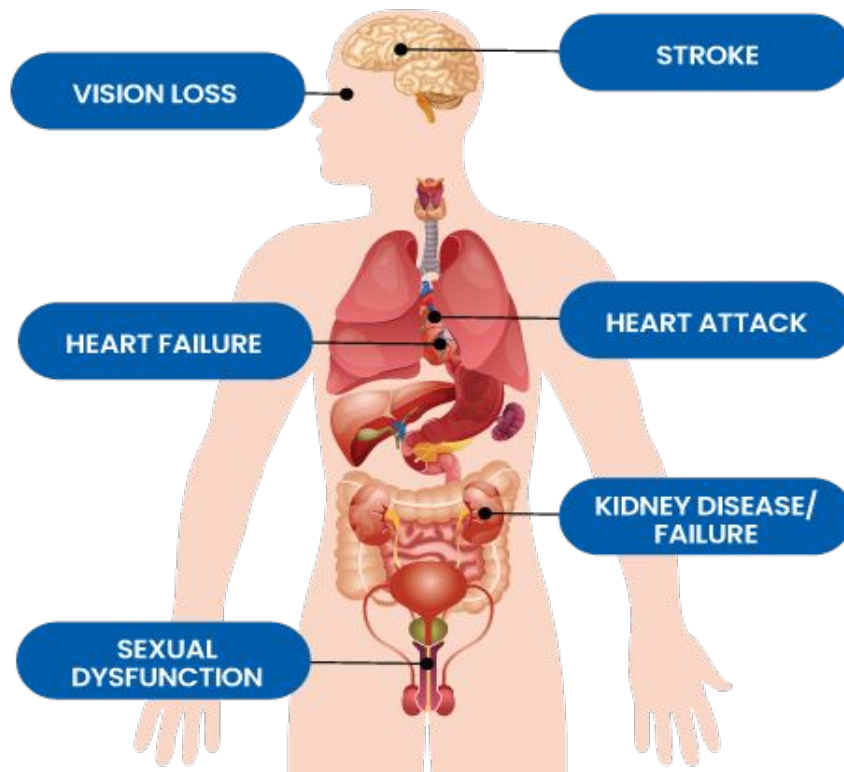
**3.4 million people** in Malaysia currently live with **two major risk factors**

(Source: National Health and Morbidity Survey 2019)



# HYPERTENSION IS A SILENT KILLER

This condition is often asymptomatic until health complications arise. By then, it might be too late for hypertensive individuals to take action.



As the visual above shows, high blood pressure can lead to various health complications!



Fortunately, hypertension is manageable with the right tools and knowledge. By checking your blood pressure regularly, you can identify potential issues early on and take action to prevent more serious health problems from developing.

# TOPIC 2

## PROPER TECHNIQUE TO MEASURE BLOOD PRESSURE

With a blood pressure monitor, you can easily measure your blood pressure from the comfort of your home. If you are not sure how to measure it, watch our [video](#) to guide you.

### How often should you take your blood pressure?

- If your blood pressure is normal and you would like to monitor it, we would recommend doing it once a week.
- If you suspect hypertension or your treating doctor has just started you on medications, we would recommend doing it daily for a week or two, then to discuss with your doctor again. Once your reading is under control, you may reduce it to once a week.

## Introducing BP Bluetooth Blood Pressure Monitor

### Notable features:

- 2 x 90 sets of memory
- Year/month/date/time function
- Irregular heartbeat (IHB) indicator



**Purchase this device** on the Doctor2U app and enjoy **RM5 OFF** your first purchase! New account registrants will receive **1,000 welcome points - worth RM10!** (Appendix 1)

# TOPIC 3

## INTERPRETING BLOOD PRESSURE READING



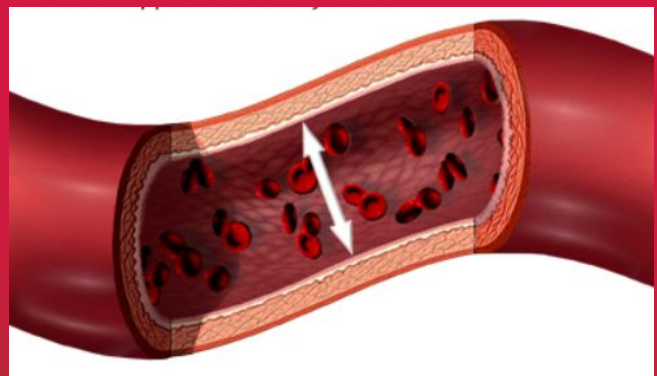
Have you ever wondered what the numbers on your blood pressure monitor mean?

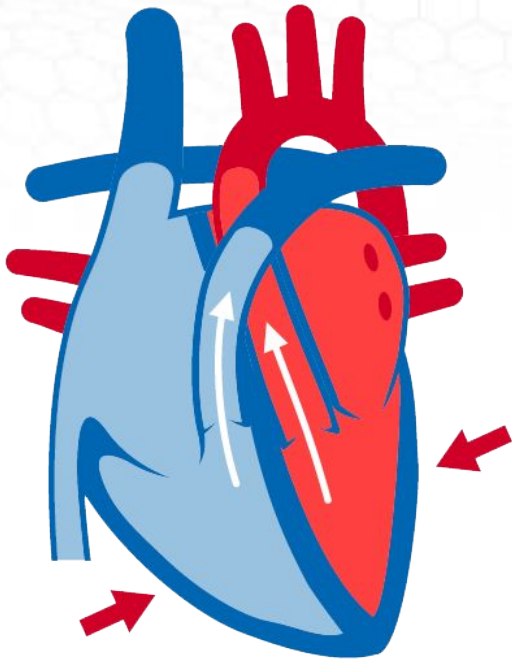
Let's find out!



To better understand, we will have to do a deep dive into the human body to look at... **our heart!**

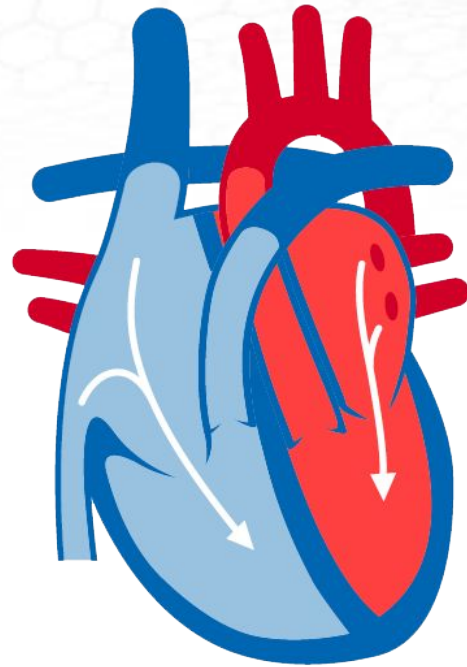
Our heart pumps blood out to our entire body through a network of blood vessels. Blood pressure is the measure of how hard the blood presses against the vessel walls.





### Systolic Blood Pressure

When the heart contracts, the pressure increases - this is our systolic pressure.



### Diastolic Blood Pressure

Meanwhile, when the heart relaxes, the pressure decreases - this is our diastolic pressure.



Therefore, using this reading as an example, we now know that...

#### **131 mm Hg**

Systolic pressure - The pressure when the heart contracts.

#### **76 mm Hg**

Diastolic pressure - The pressure when the heart relaxes.



## Let's now look at how to classify our Blood Pressure readings

Blood Pressure Category	Systolic Pressure (mm Hg) (upper number)		Diastolic Pressure (mm Hg) (lower number)	Suggested action
Normal	< 120	and	< 80	Continue monitoring
Elevated	120 - 129	and	< 80	Continue monitoring
Hypertension (Stage 1)	130 - 139	or	80 - 89	<b>Low risk:</b> Lifestyle modifications and blood pressure monitoring <b>High risk:</b> Lifestyle modifications with concurrent medication
Hypertension (Stage 2)	≥ 140	or	≥ 90	Lifestyle modifications with concurrent medication
Hypertensive crisis	> 180	and/or	> 120	Lifestyle modifications with concurrent medication

(Source: American Heart Association)



If your reading is 130/80 and above, start taking action!



We encourage a discussion with our doctors at BP Healthcare on the necessary steps - a comprehensive health screening and lifestyle changes, with or without medications.

Remember, early action can potentially prevent the need for future long-term dependence on medications!

### Note:

Differing health guidelines may promote different thresholds of treatment. Some practitioners may tell you only pressure exceeding 140/90 is considered hypertension.

We have adopted the American Heart Association guidelines recommending a lower threshold of 130/80 mm Hg as we believe in earlier intervention to mitigate complications and the need to depend on medications.

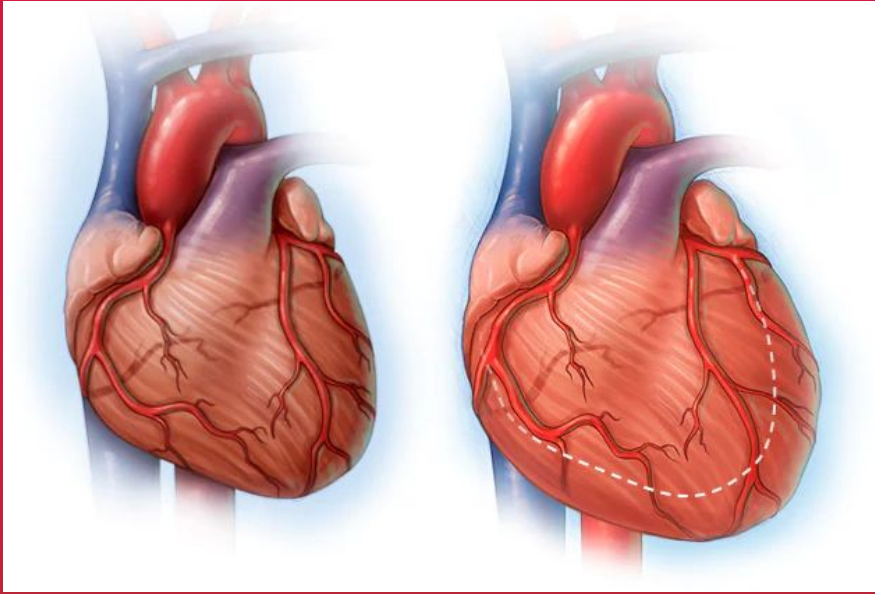
# TOPIC 4

## HIGH BLOOD PRESSURE AND ITS CONSEQUENCES

This condition is detrimental for a few reasons:

### Normal Heart

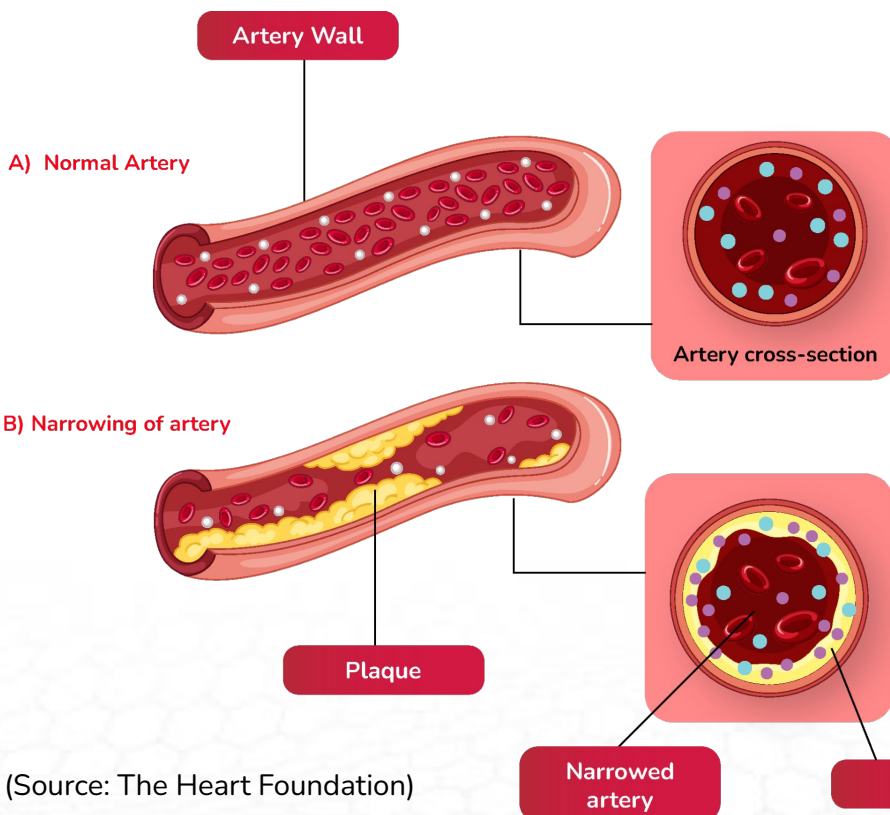
### Swollen Heart



(Source: Mayo Clinic)

### 1) Swollen Heart

Increased workload of our heart leads to a swollen heart that is weaker.



### 2) Cholesterol Plaques

Damage to tissues within the blood vessel walls leads to cholesterol plaques.

This causes health complications, such as stroke, heart attack and kidney disease.

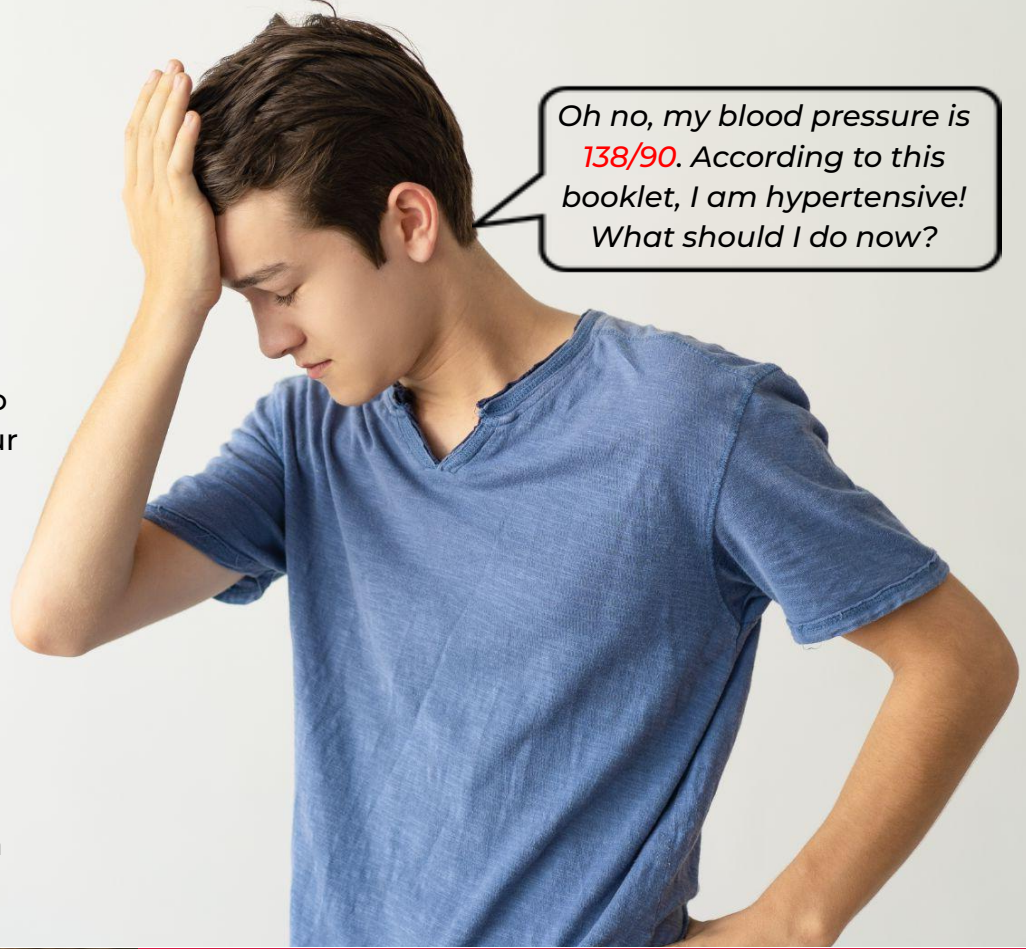
(Source: The Heart Foundation)

# TOPIC 5

## MANAGEMENT OF HYPERTENSIVE BLOOD PRESSURE

If this is your very first reading, do not panic. Continue to record your blood pressure twice daily in a week and have a rough gauge of the average readings. If it is persistently high, see a doctor to discuss your condition.

If your blood pressure exceeds 180/120 - a condition called **hypertensive crisis** - see a doctor immediately as there is a risk of a sudden heart attack or stroke!

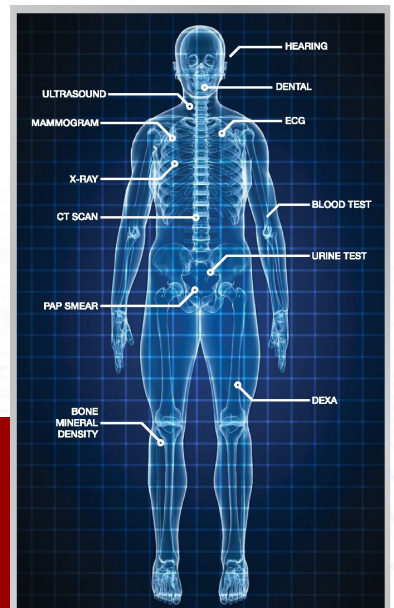


At BP Healthcare, we offer an individualised cardiovascular risk assessment where our doctors will:

- Consider your overall risk factors, including:
  - Age
  - Smoking status
  - Body mass index (BMI)
- Based on the assessment, our doctors will:
  - Calculate the 10-year-risk of you developing a heart attack
  - Assess the need and urgency of an intervention (lifestyle modifications vs medications).

### SPECIALIST **HEAD2TOE™** SCREENING 专科全身健康检查配套

We recommend for you to undergo our signature **Specialist Head2Toe Screening** (Appendix 2), which employs a multi-modality screening to look for any complications of hypertension.






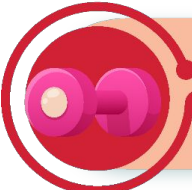

BP Healthcare brings you the most comprehensive health screening, beyond just blood tests, all within our specialist centre.

# TOPIC 6

## CONTROLLING BLOOD PRESSURE THROUGH LIFESTYLE MODIFICATIONS

A consistent plan of weight reduction, proper nutrition, physical activities and moderate alcohol consumption can do so much for our blood pressure, even before we consider medications!

### What Can You Do To Improve Your Blood Pressure?

Modification	Recommendation	Approximate SBP Reduction Range
 Weight reduction	Maintain normal body weight (BMI = 18.5 - 24.9 kg/m <sup>2</sup> )	5 mm Hg
 DASH eating plan	Diet rich in fruits, vegetables, low fat dairy and reduced in fat	11 mm Hg
 Sodium intake restriction	<1500 mg of sodium per day	5 - 6 mm Hg
 Physical activity	Be more physically active. Aim for at least 90 to 150 minutes of aerobic exercise per week	5 - 8 mm Hg
 Moderation of alcohol consumption	No more than 2 drinks/day for men and 1 drink/day for women	4 mm Hg

BP = Blood pressure, BMI = Body mass index, SBP = Systolic blood pressure, DASH = Dietary Approaches to Stop Hypertension

(Source: American Heart Association)

As you can see from the chart above, the most effective way of improving blood pressure is by having a healthy diet.



# DASH EATING PLAN AND SODIUM RESTRICTION

To prevent and control hypertension, let's practice the DASH diet (Dietary Approaches to Stop Hypertension).

## DASH Diet

REDUCE



EAT MORE



Can you guess how much salt is in our food?



1 cup of instant noodle  
**1695 mg sodium**



1 tablespoon of light soy sauce  
**1255 mg sodium**



1 piece of fried chicken  
**540 mg sodium**

The World Health Organization (WHO) recommends salt intake of less than 5 grams (just under 1 teaspoon) per day.

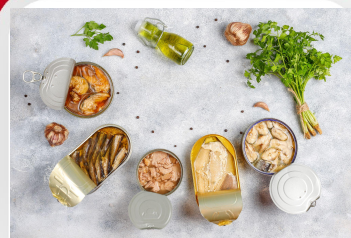
## Delicious food doesn't have to be loaded with salt! What can you do to reduce salt intake?



Use natural  
food seasoning



Skip gravy, sauce,  
pickled or smoked  
food



Avoid canned or  
processed foods if  
salt is listed in the  
top 5 ingredients

Do you find it hard to change your eating habits? Our **in-house nutritionists and dietitians** can make the process much simpler by planning out an individualised diet programme for you.

If you are looking for someone to coach, monitor and follow up on your health status, our **Basic Total Wellness Program** (Appendix 3) or **Premier Total Wellness Program** (Appendix 4) offers:

- Professional consultation and follow-up
- Body composition analysis
- Total wellness kit containing our best-selling supplements



Alternatively, consult our nutritionists via **Live Chat** or **Video Consultation**, all within our Doctor2U app!

Download the **Doctor2U app** now!



# HEART-HEALTHY SUPPLEMENTS

Eating healthy can be tough when you are always on the go. Sneak in these quick and delicious heart-healthy supplements to keep your health in check.



## Nutridos Oat Plus

Beta glucan soluble fibre helps:

- Reduce blood cholesterol
- Avoid sudden rise of blood glucose
- Prevent constipation & improve gut health

[Try our delicious recipe!](#)

## Nutridos Fish Oil

High-strength omega 3 reduces risks of:

- Cardiovascular disease
- Inflammation

[Check out our tasty recipe!](#)



## Nutridos Lov-Asure

- Complete nutrient meal replacement with 36 types of fermented fruits & vegetables; 24 essential vitamins & minerals
- Bitter melon extract helps in blood sugar management

## Nutridos Nutri-E Tocotrienols

- Tocotrienol (Vitamin E) provides 60x more powerful antioxidant
- Reduces risks of hypertension, hyperlipidemia, diabetes and Alzheimer's



As a little bonus, here is a recipe for a delicious [Strawberry Smoothie Bowl](#) using our very own Nutridos Oat Plus. Being healthy has never tasted better!



## ENDNOTE

We hope you have enjoyed our little foray into the world of hypertension!

It is our hope that you have gained valuable information on how to take better care of your health. If you liked what you have read here, you may visit our website for more information on how you can better take charge of your health... starting today!

This is BP signing off. Stay safe and take care!

### **BP HEALTHCARE CORPORATE HEAD OFFICE**

No. 17, 19 & 21, Jalan, Lorong Medan Tuanku 2, 50300 Kuala Lumpur

Tel: 03-9212 9266 Website: <https://group.bphealthcare.com>



# APPENDIX 1



## Your Healthcare Superapp



### Health Wallet

- Personal Genome Map
- Smart Medical Reporting
- Extensive Health Tracking



### Online Marketplace



### Video Consultation & FREE Live Chat



### Period Tracker



### COVID-19 Test (Virtual / KLIA & klia2/ BP Outlets / Home)



### Medication Delivery



### Home Care



### Ambulance

Enjoy **1000 BP reward points** (worth RM10) upon registration  
Plus, **RM5 off** your first in-app purchase

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NOW >**



# APPENDIX 2



## DIAGNOSTIC HEALTH SCREENING SERIES 健康检验配套系列

**SH2T 1 PAX RM 1900.00**

(Normal Price: RM3050)

**38% OFF**

Test Code: SH2T

Walk in Promocode: 23DHAPPINESS

Tag on HPV DNA at **RM175.00**

以 **RM175.00** 进行 HPV 基因检验

**FREE**

1. Add-On Test worth RM125: 25-hydroxy vitamin D

2. Free Oral Screening

3. Free Physiotherapy Assessment

### SH2T FEMALE / 女

#### Full Blood Screenings (60 Tests)

血液检验 (60 项)

- Full Blood Picture / 血球分析
- Renal Function Test / 肾脏功能检验
- Liver Function Test / 肝脏功能检验
- Hepatitis B Screening / 乙型肝炎检验
- Lipids Studies / 血脂肪
- Blood Glucose / 血糖
- Free T4 / 游离甲状腺素
- VDRL / 梅毒检查
- Rheumatoid Factor / 风湿性关节炎因子
- Urine Test / 尿液检验
- eGFR / 肾小球滤清率估计

#### Tumour Markers (3 tests) / 肿瘤指标 (3项)

- AFP : Liver Cancer / 肝癌
- CEA : Colon, Lung and General Marker / 大肠癌、肺癌
- EBV : Nasopharyngeal Cancer / 鼻咽癌

#### Liquid Cytology Pap Test / 子宫颈癌筛检

#### Additional Tests (7 tests) / 其它检验 7 项

- HIV Ag/Ab Screening / HIV 抗原/抗体筛查
- Hepatitis A IgG / 甲型肝炎抗体
- Hepatitis C IgG / 丙型肝炎抗体
- Helicobacter Pylori IgG / 幽门螺旋杆菌抗体
- Hs-CRP / 高敏感性C反应蛋白
- Urine Microalbumin / 尿液微量白蛋白
- TSH / 促甲状腺激素

#### Diagnostic Tests (6 tests) / 仪器检验 (6项)

- Resting ECG / 心电图
- Spirometry / 肺部功能检验
- DEXA (Whole Body + Hip + Spine) / 双能X光骨密度仪
- Stress Test / Treadmill 跑步心电图
- Chest X-Ray / 胸部X-光
- Audiometry / 听觉测试

#### Ultrasound Procedures (4 tests) / 超音波扫描 (4项)

- Ultrasound Upper Abdomen / 腹部超音波扫描
- Ultrasound Breast / 乳房超音波扫描
- Ultrasound Thyroid / 甲状腺超音波扫描
- Ultrasound Pelvis by / 盆骨超音波扫描

#### Physical Examination / 身体检查

### SH2T MALE / 男

#### Full Blood Screenings (60 Tests)

血液检验 (60 项)

- Full Blood Picture / 血球分析
- Renal Function Test / 肾脏功能检验
- Liver Function Test / 肝脏功能检验
- Hepatitis B Screening / 乙型肝炎检验
- Lipids profiles / 血脂肪
- Blood Glucose / 血糖
- Free T4 / 游离甲状腺素
- VDRL / 梅毒检查
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- AFP : Liver Cancer / 肝癌
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- EBV : Nasopharyngeal cancer / 鼻咽癌
- PSA : Prostate Cancer / 前列腺癌

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#### Ultrasound Procedures (4 tests) / 超音波扫描 (4项)

- Ultrasound Upper Abdomen / 腹部超音波扫描
- Ultrasound Pelvis / 盆骨超音波扫描
- Ultrasound Scrotum / 阴囊超音波扫描
- Ultrasound Both Carotid Arteries / 动脉血流超音波扫描

#### Physical Examination / 身体检查

**10 boxes Singclean**  
(COVID-19 Self-Testing Kit)



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### \*Select Any 4 from the following Specialist Services for a Single Pax



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(ENT) 耳鼻喉科



Calcium Scoring  
钙化分析



Orthopaedic's  
Consultation  
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CT Chest  
胸部電腦断层检查



Covid-19  
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**3** sessions  
in **1** month

Only  
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meal plan  
量身定制膳食计划



Personalized  
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营养咨询

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Total Wellness Kit tailored to your needs.

*\* Terms and conditions applied*



3 out of every 5 Malaysian are **OVERWEIGHT** or **OBESSE**.

Lower body fat & weight, lower risk of disease.

Join BP Total Wellness Program today and Lose Weight to be a Healthier You.

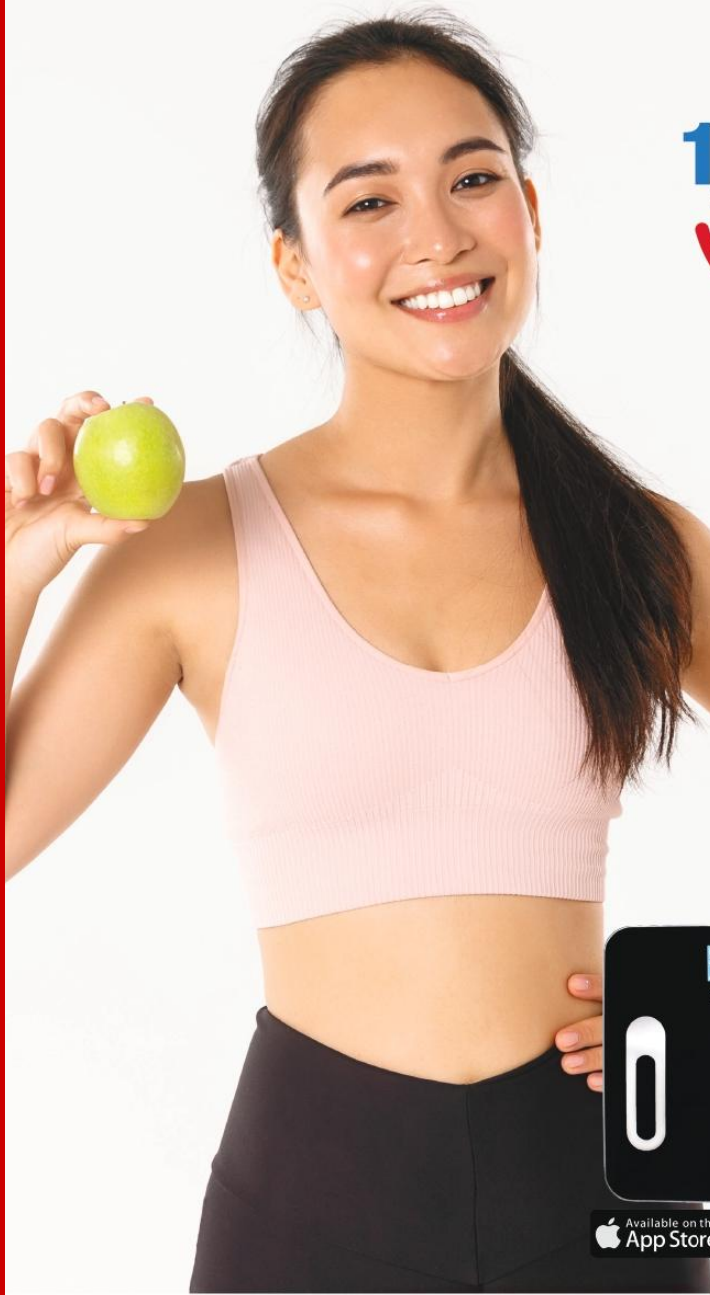


#lovlypharmacy

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## Premier Total Wellness Program



10 sessions  
in 3 months

**RM2,500**  
Normal Price / RM2,500



Health Professionals  
Consultation  
专业医疗咨询



Personalized  
nutrition advice  
营养咨询



Tailor made  
meal plan  
量身定制膳食计划



Body Composition  
Analysis  
体质分析



Bio-Chemical  
Assessment  
医生咨询



Live chat  
follow up  
线上进度跟进

**COMPLIMENTARY**

Total Wellness Kit tailored to your needs.  
*\* Terms and conditions applied*



Available on the  
App Store

ANDROID APP ON  
Google play



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Lower body fat & weight, lower risk of disease.

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