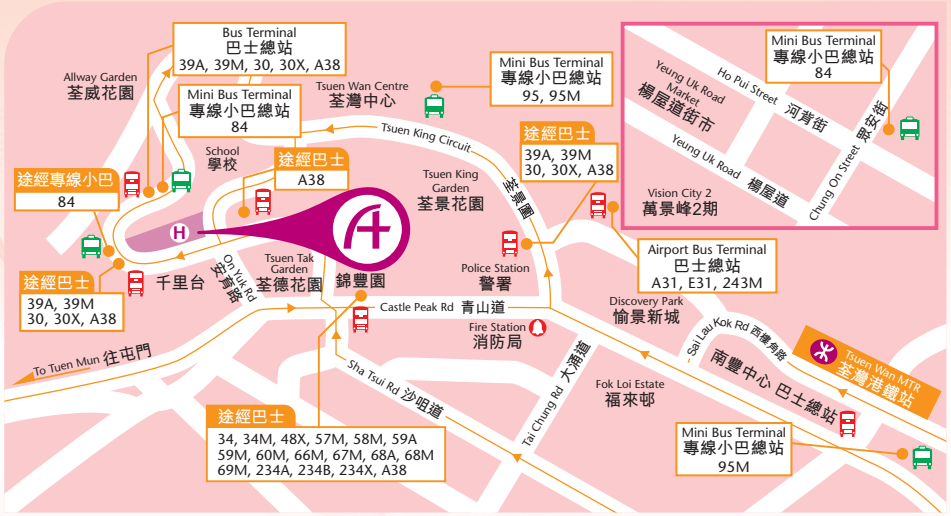
Location 醫院位置



Bus 巴士

39A	Tsuen Wan West Station	荃灣西站
39M	Tsuen Wan MTR	荃灣港鐵站
30X	Whampoa Gardens	黃埔花園
30	Cheung Sha Wan	長沙灣
A38	Hong Kong International Airport	香港國際機場

To the Hospital Via Castle Peak Road
所有行經青山公路荃灣段之巴士：

+ Alight at Tsuen King Circuit Flyover
+ Take the bus in front of Tsuen King Circuit Police Station
+ 於荃景圍天橋站下車，
+ 然後步行至荃景圍警署轉乘巴士到醫院。

Minibus 專線小巴

95M	Tsuen Wan MTR	荃灣港鐵站
95	Nina Tower	如心廣場
84	Tsuen Wan Chung On Street	荃灣眾安街

Parking 停車場

Parking is available for a fee for patients and visitors

本院設有收費停車場予病人及其家屬使用

Adventist Health 港安
Hong Kong Adventist Hospital · Tsuen Wan
香港港安醫院·荃灣

Address 地址：199 Tsuen King Circuit, Tsuen Wan, N.T.
新界荃灣荃景圍199號
Telephone 電話：(852) 2275 6688
Fax 傳真：(852) 2275 6767
Website 網站：www.twah.org.hk

Like us on
Hong Kong Adventist Hospital - Tsuen Wan

Valid date 有效期至：2022/12/31

The Hospital reserves the right to change or amend details without prior notification.
For the latest information, please visit our website at www.twah.org.hk
如有任何資料調整或變更，本院毋須另行通知。
如欲查閱最新資料，請瀏覽本院網站www.twah.org.hk。

N-2206

Extending the Healing Ministry of Christ
延續基督的醫治大能

Adventist Health 港安
Hong Kong Adventist Hospital · Tsuen Wan
香港港安醫院·荃灣

Cardiac Catheterization and Interventional Center
心導管檢查及介入治療中心

About Us
關於我們

The Cardiac Catheterization and Interventional Center is staffed with a full team of expert cardiologists, technicians, radiographers and nurses all highly experienced in their field. It allows cardiologists to care for their patients with greater speed and precision than ever before. Well-equipped operation rooms and a 24-hour emergency interventional service are available for life saving procedures, including percutaneous coronary intervention.

心導管檢查及介入治療中心的醫療團隊由心臟科專家、技術人員、放射治療師及護士組成，配合先進的設備和手術室，提供24小時緊急介入治療服務，通過精確且快速的診斷和治療，能及時拯救病人的性命。

Feature 特點

24-hour Emergency Intervention 24小時緊急介入治療
Saving patients' lives in time
及時拯救病人性命

One-stop Cardiac Check-Up and Treatment 心臟檢查及治療一站式
Follow-up by a team of experts
全程由專家團隊跟進

Enhanced Angiography System 提升血管攝影系統
HD digital imagery increases diagnostics and treatment accuracy
高清數碼影像增加診斷及治療精確度

High-End Instruments 高端儀器
Improve the comprehensiveness, safety and speed of cardiac examination
提升心臟檢查之全面性、安全性及速度

Low-Dose Syngo DynaCT 降低顯影劑用量及減少輻射
Reduces patient and operator radiation exposure and side effect or allergic reaction of contrast agent to a minimum
降低對病人之副作用與敏感人士不適

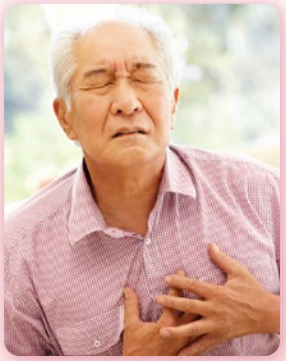
No.2 Killer : CAD
二號殺手：心臟病

Heart disease is the second killer in Hong Kong. Among them, coronary artery disease (also known as coronary heart disease) is the most threatening heart disease. Not only is it very common, it is also one of the main causes of death. In 2016, there are on average approximately 11 people died of coronary heart disease every day. Coronary Heart disease is more common in male and is becoming more common in younger people.

心臟病是本港的二號殺手，當中以冠狀動脈性心臟病（簡稱：冠心病）最具威脅性，不但非常普遍，而且是導致病人死亡的主因。2016年，每日更平均約有11人因此而死。患者中以男性較多，近年甚至有年輕化趨勢。

What are the Symptoms of Coronary Artery Disease?
冠心病有哪些病徵？

Unfortunately, about 10% of patients with coronary heart disease do not have any symptoms. Symptoms usually present only at late or critical stage of the disease and patients who suffer sudden death may not even have any preceding symptoms. Some patients with CAD may experience crushing, suffocating, or burning feeling in the chest during exercise or at times of emotional stress. The chest pain or discomfort symptoms may subside spontaneously with rest or they may persist for hours. Therefore, undergoing early cardiac examination allows detection of asymptomatic patients and offer of appropriate treatment.



不幸地，大概百分之十的冠心病患者並無任何病徵，通常在發展到嚴重階段才會出現問題，甚至在毫無徵兆下突然死亡。有些病人在運動或情緒受壓時，可能覺得心臟受擠壓、窒息或胸口灼痛；不適症狀有機會通過休息後自動消失，也有可能持續數個小時。因此，及早進行心臟檢查，有助找出隱形病患，作出適切治療。

Risk Factors of CAD 您是心臟病高危人士嗎？

- Obesity 肥胖
- Lack of physical activity 缺乏運動
- Chronic stress 長期壓力
- Smoking 吸煙
- Positive family history 家族病史
- Abnormal cholesterol 高血脂
- Hypertension 高血壓
- Diabetes mellitus 糖尿病
- The male gender 男性
- Advancing age 年長

For people with one or more risk factors for CAD, it is recommended that they undergo a cardiac assessment on a regular basis in order to monitor their level of risk. For more details, please speak to your doctor.

如果你符合一項或以上風險因素，建議定期接受心臟檢查，以評估患病風險，詳情請向醫生查詢。

Act Now : Join Our Cardiac Assessment Program
護心第一步：心臟檢查計劃

Hong Kong Adventist Hospital – Tsuen Wan is introducing the Cardiac Screening Programs to allow you to get hold of your very own cardiac condition. The high-end medical instruments equipped in the hospital such as interventional coronary imaging “ArtisQ”, allows you to acquire a more comprehensive and complete assessment of your risk of heart disease. This is achieved by taking images at a wider angle, faster speed and the reconstruction of high definition 3D stereo X-ray images with the high-dynamic range (HDR) detector. The enhanced image quality provides a higher accuracy in cardiovascular examination. Act now: To become a “Heart protector” and be free from the treat of CAD.

本院推出「心臟檢查計劃」，讓您全面掌握心臟健康情況。通過增設高端醫學儀器，例如血管攝影系統，以更廣角度及更快速度拍攝，呈現立體及高清X光影像，增加心血管檢查的精確性，讓您得到更完善、更全面的心臟病風險評估。立即行動，成為護心者，擺脫冠心病威脅。

Cardiac Assessment Program

(The following plans only apply to Out-patients)

心臟檢查計劃 (以下計劃只適用於門診病人)

Examination Items 檢查項目	Healthy Life 安心	Healthy Heart 愛心	Healthy Lifestyle 養心
+ Health Assessment by Cardiologist and Report 心臟專科醫生健康評估及報告	✓	✓	
+ Nutritional Assessment 營養評估	✓	✓	
Diagnostic Imaging 診斷影像			
+ X-Ray - Chest X光檢查 - 肺部	✓	✓	
+ Electrocardiogram (Resting) 靜止心電圖	✓	✓	
+ Echocardiogram 心臟超聲波	✓	✓	
+ Treadmill Exercise Test 運動心電圖	✓		
+ CT Coronary Angiogram 電腦掃描冠狀動脈血管造影		✓	
Laboratory Investigation 化驗室檢驗			
+ Complete Blood Count 全面血球計算	✓	✓	
+ Fasting Blood Sugar 糖尿病測試 - 禁食血糖	✓	✓	
+ Lipid Profile - Cholesterol, Triglyceride, HDL, LDL 血脂測試 (三酸甘油脂、總膽固醇、高、低密度膽固醇)	✓	✓	
+ Liver Function Test 肝功能檢查		✓	
+ Renal Function Test 腎功能檢查		✓	
+ Thyroxine 甲狀腺素		✓	
Lifestyle Management 健康生活			
+ Body Composition Analysis (such as body mass index, body fat percentage, basal metabolic rate, metabolic age and visceral fat rating) 身體成份分析 (如體質指標、體脂百分比、基礎代謝率、代謝年齡、內臟脂肪指數)			✓
+ Health Risk Assessment 健康風險評估			✓
+ Health Risk Assessment Result Analysis by Health Educator 健康教育導師分析有關評估結果			✓
+ Lifestyle Counseling by Health Educator - 2 sessions (about 30 minutes per session) 健康教育導師專業指導 - 2節 (每節約30分鐘)			✓
Price 費用	~~$6,220~~	~~$12,200~~	$980
Discounted Price 優惠價	$4,190	$ 8,210	

#Upgrade Offer 1 升級優惠 1 + $1,100

- Exercise Program: stretching class or Pilates class (8 sessions, about 1 hour per session)
  運動課程：伸展班 / 普拉堤運動班 (兩個月共八節，每節約1小時)
- Fitness Assessment and Instruction (90 mins)
  (Fitness Assessment, Exercise Prescription and Home Exercise Guidelines)
  運動評估及處方 (90分鐘)
  (體能評估、運動處方及家居運動建議)

#Upgrade Offer 2 升級優惠 2 + $2,500

- Vegetarian Cooking Class (4 sessions, about 1.5 hour per session)
  天然之味素食烹飪班 (共四節，每節約1.5小時)
- Exercise Program: stretching class or Pilates class (8 sessions, about 1 hour per session)
  運動課程：伸展班 / 普拉堤運動班 (兩個月共八節，每節約1小時)
- Fitness Assessment and Instruction (90 mins)
  (Fitness Assessment, Exercise Prescription and Home Exercise Guidelines)
  運動評估及處方 (90分鐘)
  (體能評估、運動處方及家居運動建議)
- Lifestyle Counseling by Lifestyle Medicine Clinic (2 sessions)
  養生醫學診所面診 (共兩節)
- Follow-up on Lifestyle (by SMS / phone for three months)
  專人跟進生活模式 (以短訊 / 電話跟進，為期三個月)

Important Information 注意事項

+ All who join our Cardiac Assessment Program can now enjoy 30% discount off on the following tests:
  凡參加本院心臟檢查計劃，並預約進行下列檢查皆可獲7折優待：
  - Renal Function Test 腎功能檢查
  - Liver Function Test 肝功能檢查
  - Glycohaemoglobin (Hb Alc) 糖化血色素
  - Homocysteine 同型半胱氨酸
+ Starting from the date of enrolment, the above program is valid for two months which would be extended to four months with Offer 1, or six months with Offer 2.
  養心心臟健康計劃的服務有效期為兩個月，升級至「優惠1」的有效期可延長至四個月，升級至「優惠2」可延長至六個月，由參加計劃當天起計。
+ The privileges enjoyed cannot be redeemed for cash, or exchanged for any other service / product offered by Hong Kong Adventist Hospital – Tsuen Wan.
  香港港安醫院—荃灣保留更改及刪除上述資料權利，而毋須另行通知。

Color Doppler Echocardiogram 彩色超音波回音心電圖

Doppler is an ultrasound technique which can detect abnormal blood flow within the chambers of the heart. Color Doppler is an enhanced form of Doppler Echocardiography, where different colors are used to designate the direction of the blood flow.

超音波是對診斷心臟病是非常重要的工具，能協助評估心臟結構和功能。彩色超音波以不同顏色顯示血液流動，偵測血液流經心臟和心瓣的速度、血流量及血流方向，令診斷更精確。

Carotid Doppler 頸動脈超音波

This is a special ultrasound technique used to provide 2-dimensional images of the carotid arteries (blood vessels supplying the brain) in order to detect narrowing, blockages, or abnormal blood flow.

透過二維超音波可以觀察頸部大動脈的內膜厚度，以及有否出現動脈粥狀硬化的情況，從而了解全身血管有否變得狹窄，並預測未來發生心血管疾病（例如：腦中風）的機會。

Echocardiogram 心臟超聲波檢查

The use of ultrasound waves to investigate and display the action of the heart as it beats. It is used for the purpose of diagnosis and assessment of congenital and acquired heart diseases.

利用先進及無創性超聲波技術，可得出心臟跳動的即時影像，幫助醫生評估心臟結構及收縮功能是否良好，亦可知道心瓣膜是否正常，從而診斷先天或後天心臟疾病。

Holter Monitoring 24小時心電圖記錄

The Holter monitor is a small, portable, battery-powered ECG machine, used to continuously record the heart's electrical activity for a period of 24 hours or more.

病人會隨身攜帶一部小巧輕便的心電圖記錄儀，24小時連續記錄心臟跳動的情況，讓醫生掌握病人的心臟於日常活動的適應能力，從而對其心臟功能作出更有依據的診斷。

Treadmill Exercise Test 運動心電圖

Whilst the patient is running on a Treadmill, an ECG, the respiration rate, and blood pressure fluctuations, are all recorded. These readings enable doctor to diagnose whether there is a lack of oxygen in the heart muscle during the test. The results can indicate a safe level of exercise for a patient who has had a heart attack, or previous cardiac surgery.

病人接駁上心電圖檢查儀器後，於跑步機上跑步，同時監察呼吸和血壓。此檢查有助診斷出運動時心肌的缺氧情況，並助醫生判斷病患者可接受的運動量。

Coronary CT 冠狀動脈血管造影

After upgrading the MDCT, it takes only 6-8 seconds to produce highly accurate 3D cardiovascular images for EP/SHD navigation so that patients do not need to undergo a traumatic examination. Computer tomography is capable of detecting very small amount of calcification and thereafter calculating the calcification index. The calcification index can be used to accurately diagnose early coronary infarction and coronary heart disease.

經過提升後的多排電腦掃描儀器，只需6-8秒便可以掃描出最準確的3D心血管圖像供EP/SHD導航，讓病人毋須接受創傷性檢查。電腦掃描能偵察出極微量的鈣化現象，從而計算鈣化指數，有助準確診斷出早期的冠狀動脈梗塞及冠心病。

Interventional Diagnosis and Treatment
守護有心人：介入診斷及治療

A very effective treatment is Balloon Angioplasty and Stenting, which widens the blocked or narrowed segment of the involved vessel and reduce the incidence of post-procedural re-narrowing. This procedure is usually performed at the same setting following the initial cardiac catheterization and coronary angiography. Another alternative is coronary bypass grafting via open heart surgery.

病人一旦確診冠心病，治療方法主要為球囊冠狀動脈成形術，俗稱「通波仔」；以及「支架植入術」，治療堵塞或收窄的血管腔，並預防問題再次發生。以上手術，多數會在心導管檢查及冠狀動脈血管造影後即時進行。其他治療方案，亦有心臟搭橋手術等。

Coronary Angiography 心導管及冠狀動脈血管造影檢查

This procedure remains the 'gold standard' for diagnosing coronary artery disease and provides an accurate assessment of the severity of stenosis in an artery. A thin specialized catheter is inserted into the coronary arteries via a peripheral artery under local anaesthetics. The insertion of catheter is performed under image guided technique. Radio-opaque contrast agent will then be injected for coronary angiogram which will reveal any coronary arterial pathology, arterial narrowing, arterial stenosis, arterial calcification or other abnormalities.

In order to enhance the quality of the coronary angiography, the center is equipped with state-of-the-art coronary imaging system which captures image at a resolution as high as 4.72 million pixels with wide and dynamic angle and an imaging capture speed of 75/s. The new system allows a faster and a more comprehensive examination and thus provides a more accurate direction with respect to clinical management.

A procedure known as Percutaneous Transluminal Coronary Angioplasty (PTCA) (also known as coronary balloon dilatation) with or without stent placement may be performed on patients with significantly narrowed coronary arteries at the same setting, depending on patient's condition.

In addition, Intravascular ultrasound (IVUS), is a medical imaging methodology using a specially designed catheter with a miniaturized ultrasound probe attached to the distal end of the catheter. IVUS in the coronary anatomy is in the quantification of left main disease in cases where routine coronary angiography gives equivocal results. IVUS can directly quantify the percentage of stenosis and give insight into the anatomy of the plaque. It is also used to assess the effects of treatments of stenosis such as with hydraulic angioplasty expansion of the artery, with or without stents over time.

Optical Coherence Tomography (OCT) is a computer based tomography imaging system with the world's highest definition. It provides new insight into the assessment and treatment of coronary artery disease with stent placement, as it can clearly visualize stent malapposition and tissue prolapse after stent deployment. The resolution of OCT is as high as 10μm, producing images 10 times clearer than those captured by intravascular ultrasound. Its scanning speed is also more than 10 times faster than ultrasound. This enables doctors to obtain quick and accurate visuals of the patient's cardiovascular thrombosis condition.

Fractional Flow Reserve (FFR) is a technique used in coronary catheterization to measure pressure differences across a coronary artery stenosis (narrowing, usually due to

atherosclerosis) to determine the likelihood that the stenosis impedes oxygen delivery to the heart muscle (myocardial ischemia). The measurement of FFR has been shown useful in assessing whether or not to perform angioplasty or stenting.

此檢查是診斷心臟病的「黃金標準」。病人在局部麻醉下，醫生通過微創方式以柔軟細小的導管送入病人的冠狀動脈開口，注射顯影劑以進行心血管造影，顯示冠狀動脈的病變、血管收窄、阻塞、鈣化或其他異常情況。為了提升檢查質素，中心增設先進的血管攝影系統，採用高達472萬像素的解析度，以更廣動態角度展示冠狀動脈移動中的細小血管等，影像擷取速率高達75f/s，不但加快檢查速度，亦令病變評估更全面，為治療方式提供更準確的指導方向。如病人情況許可，還可以即時作出跟進治療，進行球囊冠狀動脈成形術（通波仔），或附以支架植入術。

配合造影的檢查方法亦有「血管內超音波」，利用導管前端的超音波探頭，彌補冠狀動脈攝影對於血管病灶死角的限制，方便分析狹窄處病灶的情況以及粥狀斑塊的特性，測量血管內徑大小及截面積，並協助選擇適當的支架。

全球最高清的斷層掃描系統「冠狀動脈內光學相干斷層掃描儀」，讓醫生可以通過高清影像監察患者於接受「通波仔手術」時，支架有否緊貼血管壁和發揮作用，並可作出即時調整。此掃描系統的解像度達10μm，是現時心血管超聲波的10倍，掃描速度也較超聲波快10多倍，醫生可快捷和準確地看清楚病人心臟血管栓塞情況。

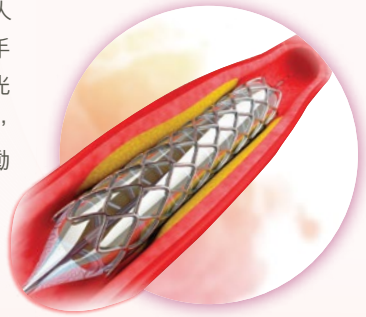
「血流儲備分數」則用作評估冠狀動脈狹窄程度的生理指數，透過偵測血流經正常點與狹窄點的壓力及流量變化的差別，判別血流是否正常，篩選出真正需要放置心臟血管支架的病人。

Coronary Balloon Angioplasty 球囊冠狀動脈成形術（俗稱：通波仔）

This is a minimally invasive procedure to open narrowed or blocked coronary arteries performed under local anesthetic, and with X-ray control. A cardiac catheter is inserted either via the groin or the wrist, and the balloon is positioned within the narrowed segment of your coronary artery. The balloon is then inflated and the stenosed segment of the artery is then widened, thus allowing restoration of normal blood flow.

The center is equipped with edge cutting medical instruments which reduces and efficiently compensate the presence of motion artifacts due to X ray penetration in the past, enabling a more accurate coronary angiogram, enhancing the effectiveness of coronary intervention.

醫生會為局部麻醉的病人進行透視微創手術，目的是打通病人收窄或閉塞的冠狀動脈。醫生經病人腹股溝的股動脈，或是手腕的橈動脈引進幼長的柔軟導管，其末端附有球囊，通過X光透視直達心臟的病變位置，然後讓球囊擴張，擴大血管直徑，改善血流。中心新增先進儀器明顯改善過去X光透視產生的動作假影，呈現出更精確的冠狀動脈血管影像，加強手術效率。



Stenting 支架植入術

A stent is made of very thin steel and is in the form of a cylindrical slotted tube of different sizes. It is delivered and placed inside a segment of an artery following balloon dilatation. The stent is rigid enough to prevent collapse of a vessel after balloon dilatation, yet flexible enough to be delivered to the segment which has just been dilated. Drug-eluting stents are stents that have been coated with medications that can prevent restenosis caused by overgrowth of tissue (intimal hyperplasia).

With the advancement of coronary imaging system in the centre, the relative position of the placed stents or the dissected arteries can be precisely located even when the balloon is moving in the coronary arteries or when contrast agent is being injected.

Following successful angioplasty and stenting, a patient requires adequate anti-platelet agents, usually a combination of aspirin and another medication called Plavix, to prevent clotting.

支架是呈網管狀的鋼製醫療儀器，一般配合球囊冠狀動脈成形術使用，支撐動脈血管。中心的X光影像儀器提升後，無論氣球在冠狀動脈血管中移動，或正在注射顯影劑，都可以精確定位出支架或血管解剖結構的相對位置，幫助複雜手術。手術成功後，病人須服用抗凝血藥物，一般為阿斯匹靈和ADP受體抑制劑組合，以防止血液凝結。

Cardiac Rehabilitation Program Package 心臟復康計劃

The exercise-based cardiac rehabilitation aims to restore coronary heart disease patients to health, especially those who have undergone Coronary Balloon Angioplasty. Cardiologists, physiotherapist and dietitians collaborate across specialty to advise patients the most appropriate program to improve patient's cardiovascular fitness and health.

此計劃旨在針對心臟病患者，尤其接受過球囊冠狀動脈成形術（俗稱：通波仔）人士，由心臟科醫生、物理治療師以及營養師跨專科合作，為病人建議最合適的心臟康復計劃，讓病人心臟功能改善並變得更健康。

Items 項目	Phase 1 第一階段	Phase 2 第二階段
+ Dietetics Counseling 營養輔導	1節 session	1節 session
Rehabilitation Treatment 復康治療*		
+ Cardiac Rehabilitation Exercises 心臟復康運動	1節 session	4節 sessions
Diagnostic Imaging 診斷影像		
+ Treadmill Exercise Test 運動心電圖		✓
Price 費用	**$1,400**	**$5,450**

Important Information 注意事項

* For bookings and enquiries regarding our Rehabilitation Treatment, please call Rehabilitation Center 2275 6111.
預約及查詢關於復康治療，請致電復康治療中心 2275 6111。

\+ The Hospital reserves the right to change or amend details without prior notification.
如有任何資料調整或變更，本院毋須另行通知。

Appointment & Enquiries 預約及查詢

Please call us for appointment & enquires.

如有任何疑問或預約心臟科醫生，歡迎致電與本中心職員聯絡，或瀏覽下列網址：

Tel 電話：**(852) 2275 6915** Website 網址：**www.twah.org.hk**