CityU SCOPE Running Class 2017-2018

Coach: **Wong Tak Shing**

About me…

Year	Coaching
1984-1987	Coach (middle & long distance) of Colgate Women Athletics Training Course
1987-now	Teacher-in-charge of Athletics and Cross Country Team at school
1996-1998	Coach (middle & long distance) of HKAAA Athletics Junior Squad
1996-2001	Coach (middle & long distance) of TCAA Summer Athletics Training Course
1997-Feb	Team Manager of Hong Kong Junior Cross Country Team for the 4th Asian Cross Country Championships

About me…

Year	Coaching
1997-2002, 2006-2014	Lecturer of Level 1, 2, and 3 (Sports Psychology) Sports Coaching Courses of the Hong Kong Coaching Committee
2006-2010	Tutor/Coach of Joint Sports Centre* Running Classes
2007-2008	Tutor/Coach of CityU Quali-run for Wellness 2007
2007-now	Tutor/Coach of CityU Standard Chartered Hong Kong Marathon Running Classes
2009-2012	Tutor/Coach of BU Standard Chartered Hong Kong Marathon Running Classes

* Joint Sports Centre – BU, CityU, and PolyU

Is Running Safe?

Sudden Deaths in the SCHK Marathon*

Year	Gender	Age	Occurrence
2006	Male	53	13 Km after the start of the Marathon
2012	Male	26	40 m after crossing the finishing line of the Half-Marathon
2015	Male	24	Before the finishing line of the 10 K race
2017	Female	52	300 m before the finishing line of the 10 K race

* From Apple Daily 2017-02-14

Definition of Sudden Death

Adabag, et. al (2010)

- **Unexpected** death that occurs **within 1 h** from the **start of symptoms** when death is **witnessed**, and **within 24 h** of being seen alive and well when it is **unwitnessed**.

Risks of Sudden Death

Standard Chartered HK Marathon

- Over 860,000 participants since 1997.
- 4 deaths since 1997.
- 4/860000 or **1 in 215,000**.

No. of Participants since 1997										
1997	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
1,000	6,000	7,000	-	10,000	13,000	18,500	24,000	31,330	40,174	43,956
2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
50,000	55,000	60,000	65,000	70,000	-	73,000	-	74,000	-	???

Risks of Sudden Death

Earlier Research Results

- **Maron, et. al (1996)**
  - Risk of sudden cardiac death (SCD) with marathons is **1 in 50,000** finishers.
- **Pedoe (n.d.)**
  - London Marathon, from 1981 to 2003, 7 deaths or **1 in 67,414**.
- **Pedoe (2000)**
  - New York Marathon, **3 in 400,000**.

Risks of Sudden Death

Earlier Research Results

- **Frere, et al. (2004)**
  - 10 K, 12 K, 15 K and Half-marathon races between 1996 to 2000.
  - 5 deaths in 1,636,720 finishers or **1 in 327,344**.
  - Compared with the combined marathon results from Maron, et al (1996) and Pedoe (2000),
    - Risk of shorter races in their study: **3.1 in 1,000,000**.
    - Risk of Marathon races: **14 in 1,000,000**.
    - **No** significant differences among the shorter races.

Risks of Sudden Death

Roberts (2005): SCD Rates from the Twin Cities and Marine Corps Marathons

- 1976 to 1995: among 221,318 finishers, **1 in 55,000**.
- 1996 to 2004: among 220,606 finishers, **1 in 220,000**.
- Both subsets have virtually identical numbers of finishers.
- "This **decrease** in **mortality** observed among race participants experiencing cardiac arrest since 1995 is largely attributable to the expanded access to **external defibrillators** now available on many road racing courses, including the marathon."

Risks of Sudden Death

Webner, et. al (2012): SCA and SCD in US Marathons from 1976 to 2009

- **1 in 57,000** for **SCA** and **1 in 171,005** for **SCD** (28 or 93% **male** with a mean age **49.7** year).
- The majority occurring in **middle- to late-age males**.
- Most common in the **late stages** of the race.
- Resuscitation is most successful when there are **early** responders and an **AED** (**A**utomated **E**xternal **D**efibrillator) is used.

Risks of Sudden Death

AED (Automated External Defibrillator)

Risks of Sudden Death

Webner, et. al (2012): SCA and SCD in US Marathons from 1976 to 2009

- **Mortality** after **SCA**, with **no** intervention, is **greater than 95%**.
- After initial collapse, **survival decreases** by **7%–10%** with **each minute** that **defibrillation** is **delayed**.
- **Defibrillation within 3 min** of **SCA** can produce **survival rates** as high as **67%–74%**.

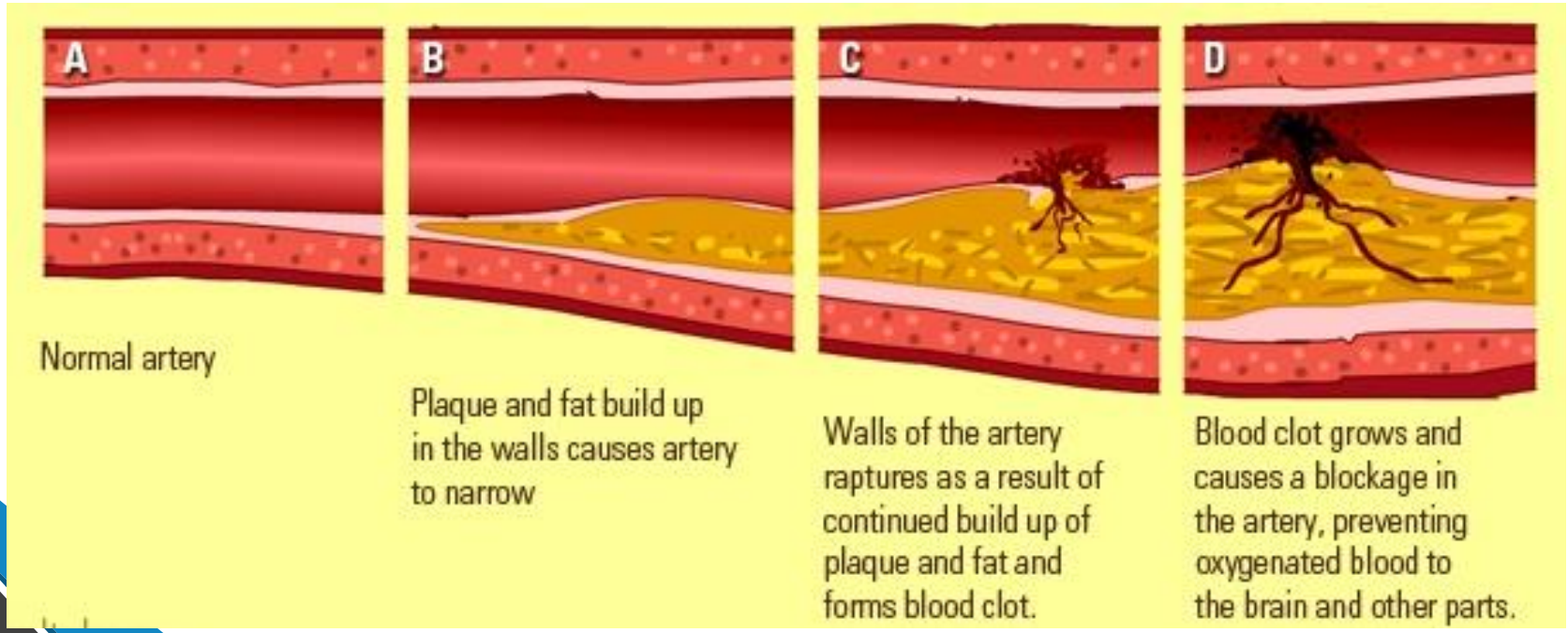
Causes of Sudden Death

Semsarian, et. al (2016)

- **Below 35 years**
  - Hypertrophic cardiomyopathy
    - Unexplained left ventricular hypertrophy, which can lead to ventricular tachycardia/fibrillation and sudden cardiac death.
  - Congenital coronary artery abnormalities
- **Aged 35 years and older**
  - Atherosclerotic coronary artery disease

Causes of Sudden Death

Atherosclerosis



PAR-Q

Physical Activity Readiness
Questionnaire - PAR-Q
(revised 2002)

PAR-Q & YOU

(A Questionnaire for People Aged 15 to 69)

Regular physical activity is fun and healthy, and increasingly more people are starting to become more active every day. Being more active is very safe for most people. However, some people should check with their doctor before they start becoming much more physically active.

If you are planning to become much more physically active than you are now, start by answering the seven questions in the box below. If you are between the ages of 15 and 69, the PAR-Q will tell you if you should check with your doctor before you start. If you are over 69 years of age, and you are not used to being very active, check with your doctor.

Common sense is your best guide when you answer these questions. Please read the questions carefully and answer each one honestly: check YES or NO.

YES	NO	
☐	☐	**1. Has your doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor?**
☐	☐	**2. Do you feel pain in your chest when you do physical activity?**
☐	☐	**3. In the past month, have you had chest pain when you were not doing physical activity?**
☐	☐	**4. Do you lose your balance because of dizziness or do you ever lose consciousness?**
☐	☐	**5. Do you have a bone or joint problem (for example, back, knee or hip) that could be made worse by a change in your physical activity?**
☐	☐	**6. Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?**
☐	☐	**7. Do you know of any other reason why you should not do physical activity?**

PAR-Q

If you answered

YES to one or more questions

Talk with your doctor by phone or in person BEFORE you start becoming much more physically active or BEFORE you have a fitness appraisal. Tell your doctor about the PAR-Q and which questions you answered YES.

- You may be able to do any activity you want — as long as you start slowly and build up gradually. Or, you may need to restrict your activities to those which are safe for you. Talk with your doctor about the kinds of activities you wish to participate in and follow his/her advice.
- Find out which community programs are safe and helpful for you.

NO to all questions

If you answered NO honestly to all PAR-Q questions, you can be reasonably sure that you can:

- start becoming much more physically active – begin slowly and build up gradually. This is the safest and easiest way to go.
- take part in a fitness appraisal – this is an excellent way to determine your basic fitness so that you can plan the best way for you to live actively. It is also highly recommended that you have your blood pressure evaluated. If your reading is over 144/94, talk with your doctor before you start becoming much more physically active.

DELAY BECOMING MUCH MORE ACTIVE:

- if you are not feeling well because of a temporary illness such as a cold or a fever – wait until you feel better; or
- if you are or may be pregnant – talk to your doctor before you start becoming more active.

PLEASE NOTE: If your health changes so that you then answer YES to any of the above questions, tell your fitness or health professional. Ask whether you should change your physical activity plan.

Informed Use of the PAR-Q: The Canadian Society for Exercise Physiology, Health Canada, and their agents assume no liability for persons who undertake physical activity, and if in doubt after completing this questionnaire, consult your doctor prior to physical activity.

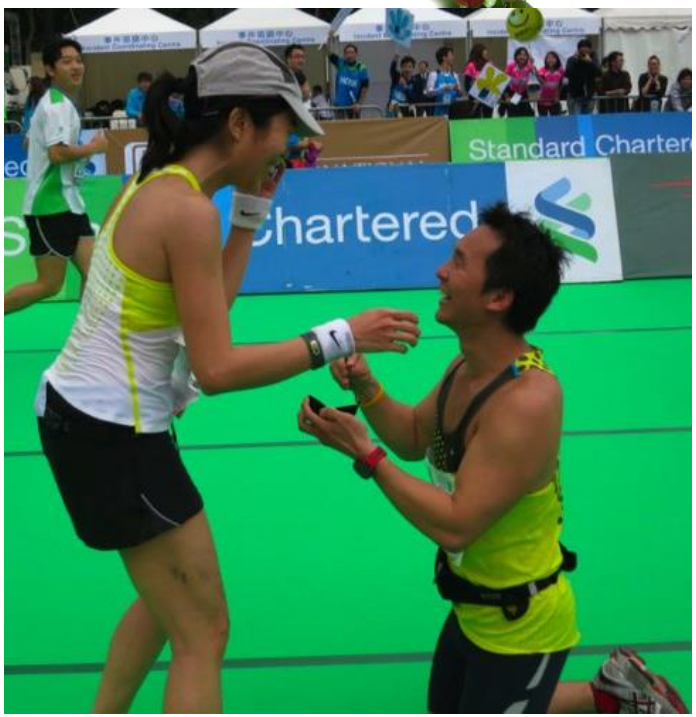
No changes permitted. You are encouraged to photocopy the PAR-Q but only if you use the entire form.

NOTE: If the PAR-Q is being given to a person before he or she participates in a physical activity program or a fitness appraisal, this section may be used for legal or administrative purposes.

"I have read, understood and completed this questionnaire. Any questions I had were answered to my full satisfaction."

Reasons for Running

- **Others** are running
- My **friends** are running
- My **boss** is running
- My **boss told** me to run
- My **love** is running
- I **love** running
- As an **elective programme**



Reasons for Running

Ng & Lonsdale (2010)

- **Five main reasons** for running:
  1. Physical health
  2. Mental health
  3. Social factors
  4. Achievements
  5. Fun

Reasons for Running

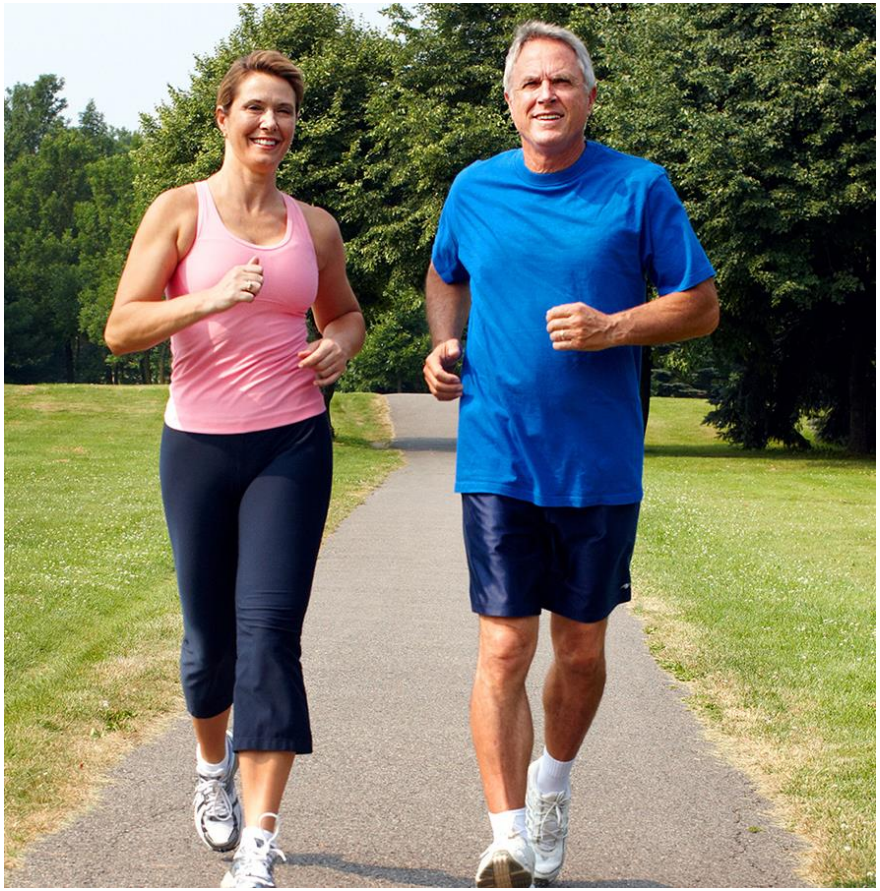
Curtis & McTeer (1981)

- For **most** **marathon** runners,
  - **At the beginning**
    - Physical and mental health
  - **Eventually**
    - Achievements and challenges

Reasons for Running

Ogles & Masters (2000)

- **Matured runners** (50+)
  - Health
  - Weight control
  - Meaningfulness
  - Socialization
- **Younger runners**
  - Personal goals



Goals for Running

- Just for **health** & **fitness**
- Just to **finish** the race
- To achieve **personal best**
- To obtain **medals**

Singer (1986, p. 31)

- "If you don't know where you're going, it is difficult to select a suitable **means** of getting there."

Mo Farah – London Olympics 2012 5000 m Final

Body Position

- Upper body erects, without leaning too much to the front.
- Eyes look forward at a distance far away.
- Face and neck muscles relax.

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Drive and Swing

- As the swinging leg moves forward and upward, the driving leg impulsively extends its hip joint, followed by the knee and ankle joints.

Mo Farah – London Olympics 2012 5000 m Final

Drive and Swing

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Mo Farah – London Olympics 2012 5000 m Final

Drive and Swing

- Finally, push-off the ground with the toes.

Mo Farah – London Olympics 2012 5000 m Final

Drive and Swing

- The lower leg of the swinging leg should be relaxed all the time, hanging loosely from the knee.
- At the end of the drive phase, the driving leg (i.e., the support leg) extends almost completely

Mo Farah – London Olympics 2012 5000 m Final

Recovery

- As the driving leg breaks ground-contact, the heel of this foot rises towards the hip.
- The knee of the other leg (i.e., the swinging leg) has to relax, getting ready for the landing.

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Mo Farah – London Olympics 2012 5000 m Final

Landing and Support

- The foot forward of the body should make ground-contact (with knee slightly bent) within 30 cm in front of the projection of the body's centre of gravity

Mo Farah – London Olympics 2012
5000 m Final

Landing and Support

- The outer edge of the ball of the foot makes ground-contact first.
- Immediately afterward, the foot rolls inward and the heel comes to the ground to bear the full weight of the body, preparing for the drive.

Remarks:

1. The ground-contact can also be made with flatted foot.
2. Do not deliberately avoid the heel from touching the ground.

Mo Farah – London Olympics 2012 5000 m Final

Landing and Support

- The knee of the supporting leg is slightly bent when the foot rest flat on the ground.
- The swinging leg should be flexing towards the hip as it advances forward.

Mo Farah – London Olympics 2012 5000 m Final

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Mo Farah – London Olympics 2012 5000 m Final

Arm Movement

- Hold the fists lightly, with the thumbs resting on the index fingers.
- Elbows bend at 90 degrees or smaller.

Mo Farah – London Olympics 2012 5000 m Final

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Mo Farah – London Olympics 2012 5000 m Final

Arm Movement

- Arms keep close to the body.
- Shoulders and chest should be relaxed, and arms should be swinging naturally just to counterbalance the momentum of the leg movements.

Mo Farah – London Olympics 2012 5000 m Final

Arm Movement

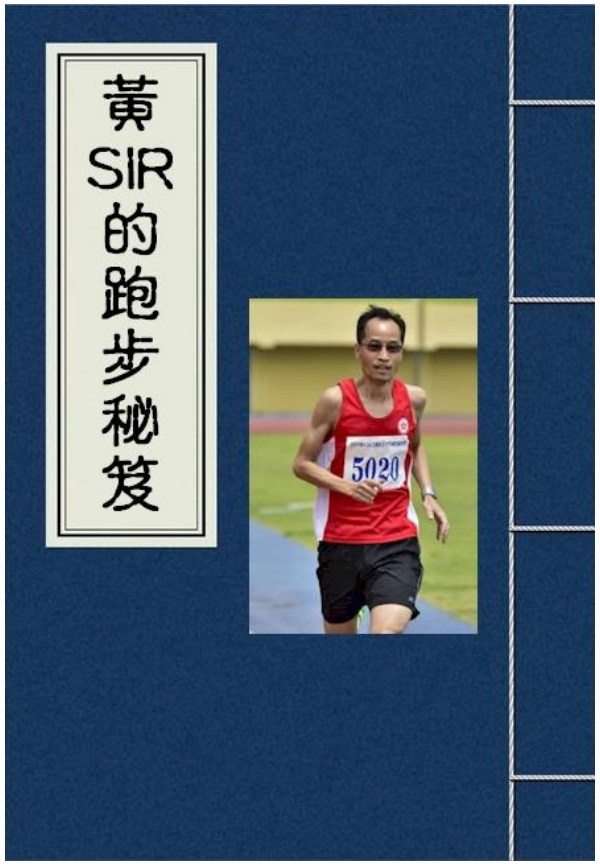
- No forceful arm actions should be emphasized.

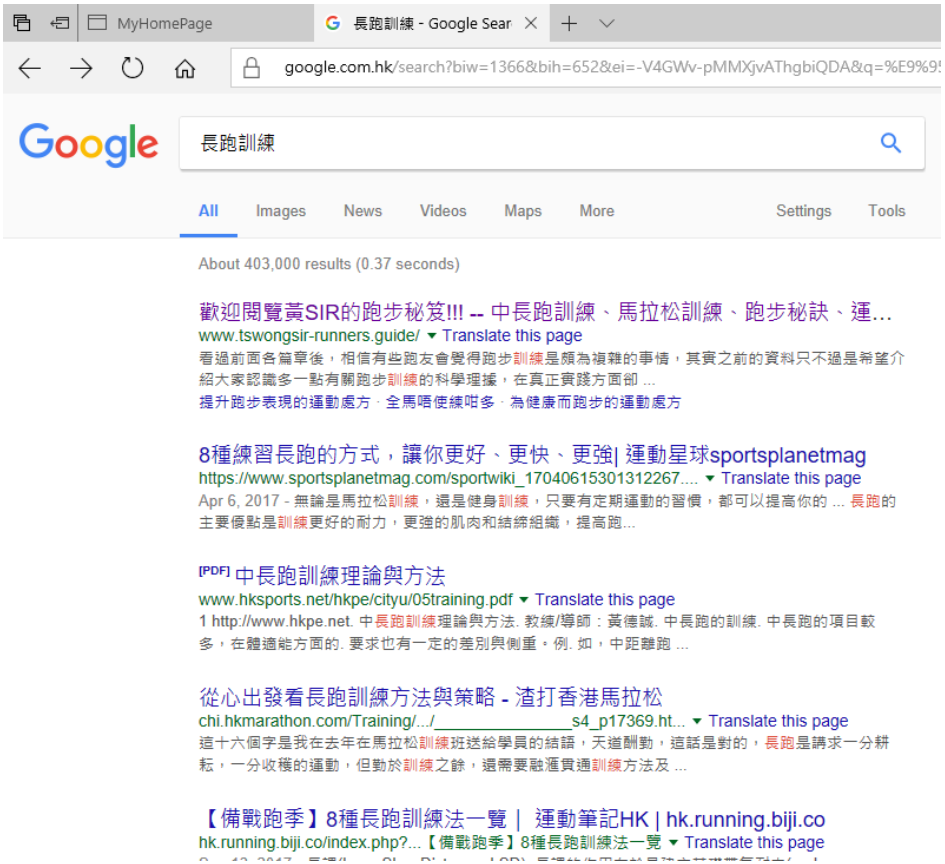
Wong-Sir's Comments on Running Skills

- **Vertically** aligned head and body.
- Look **forward** and **further away**.
- Arms bent at **90° or smaller** at the elbow.
- **Do not over stride**.
- Use **forefoot** strike or **mid-foot** strike, **avoid heel** strike.
- Land **within 30 cm** in front of the projection of the C.G. on the ground.
- Run in a **steady** and **relax** manner.
- **Do not overemphasis** arms movement.

Running Training Q&A

Want to know more...





http://www.tswongsir-runners.guide