

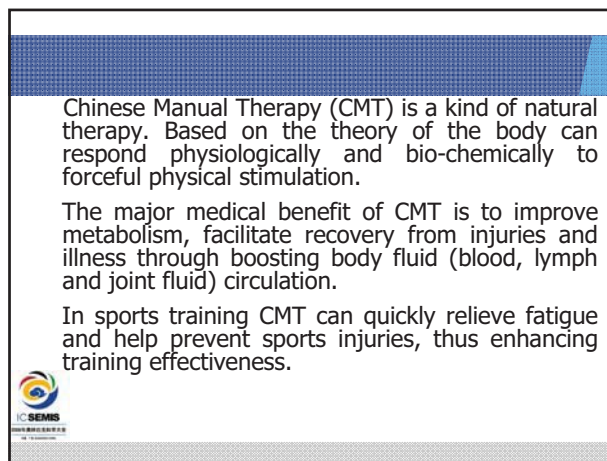


# The Application of Chinese Manual Therapy in Sports Training and Competitions

XU Zhengzheng, MD  
Chinese Medicine Coordinator  
Hong Kong Sports Institute




2008年奥林匹克科学大会  
2008 Olympic Science Conference



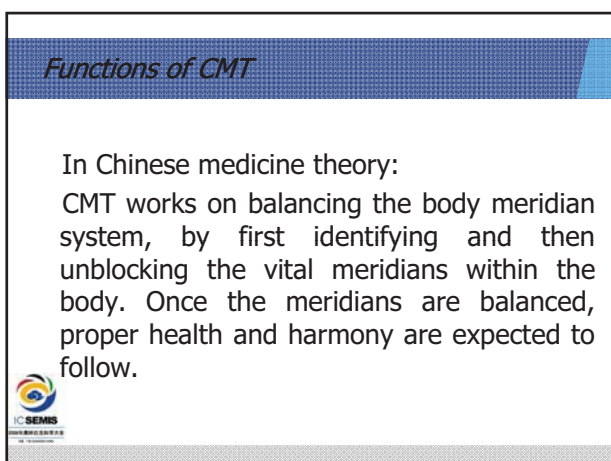
Chinese Manual Therapy (CMT) is a kind of natural therapy. Based on the theory of the body can respond physiologically and bio-chemically to forceful physical stimulation.

The major medical benefit of CMT is to improve metabolism, facilitate recovery from injuries and illness through boosting body fluid (blood, lymph and joint fluid) circulation.

In sports training CMT can quickly relieve fatigue and help prevent sports injuries, thus enhancing training effectiveness.




2008年奥林匹克科学大会  
2008 Olympic Science Conference

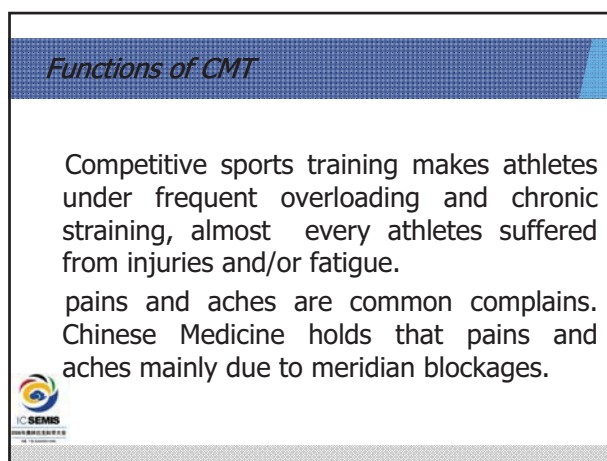


## *Functions of CMT*

In Chinese medicine theory:  
CMT works on balancing the body meridian system, by first identifying and then unblocking the vital meridians within the body. Once the meridians are balanced, proper health and harmony are expected to follow.




2008年奥林匹克科学大会  
2008 Olympic Science Conference



## *Functions of CMT*

Competitive sports training makes athletes under frequent overloading and chronic straining, almost every athletes suffered from injuries and/or fatigue.  
pains and aches are common complains. Chinese Medicine holds that pains and aches mainly due to meridian blockages.



2008年奥林匹克科学大会  
2008 Olympic Science Conference

## *Meridian blockages?!*

Serious trauma: bone fracture, muscle strain, tendon sprain and joint dislocation.  
Chronic injuries: tendinitis, bursitis, fat pad inflammation.  
Overtraining: fatigue, deficiency



## *Functions of CMT*

To relieve pain and subside swelling;  
To enhance local metabolism;  
To improve immunity;  
To speed rehabilitation of tissues.



## *Basic Elements of CMT*

Force (power): Includes both absolute force and intensity of pressure (i.e. force per unit area)

Frequency (duration): refers to the time required to complete a single movement, or the number of movements that completed per minute.

Direction of force: refers to the direction of force applied on the body or the direction of movement against the body.



## *Basic Elements of CMT*

Being the Foremost essential element of CMT, appropriate force is the key to successful treatment. The treatment rhythm is controlled by frequency and the direction of the force.

For different combinations of the three elements, we have many CMT techniques and different schools (or style).



## Basic Elements of CMT

CMT can produce tonyfing and purging effects on the meridian system.

Tonyfing: related light force, low frequency, long duration and along the route of meridians.

Purging: related heavy force, high frequency, short duration and opposite (or vertical) direction to the meridians.



## Basic Elements of CMT

In other words, as physiological study results, short time quick stimulation induces excitement (i.e. purging) used in pre-match.

While long time gentle stimulation induces suppression (i.e. tonyfing) used in post-competition for recovery.



## Basic Techniques of CMT

### Manual Diagnostic Techniques: Palpation

Touching the body to feel the difference and any change by making comparison.

We should:

- Identify the real signs of injuries
- Judge the level and nature of injuries
- Chose appropriate treatment techniques
- Evaluate the treatment effect



## Basic Techniques of CMT

### Palpable signs of muscles

**Normal image:** Plump and resilient, robust and soft, with a smooth even texture and a clear border.

**Fatigued muscles:** Increased muscle tension, decreased muscle elasticity and apparent sings of dull pain.

**Acute injuries:** Swollen, much increased tension, lost elasticity, sharp pain.

**Chronic or uncovered injuries:** Hard knot, cord-like tissue and scarring



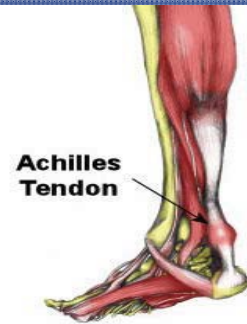
## Palpable signs of tendons

**Normal image:**

Tenacious and strong, fine and even with apparent border.

**Fatigued and Chronic injured tendons:**

Thickened tendons, damaged uniformity, node with pain, fusiform-shaped change.



## Palpable signs of ligament fascia

**Normal image:**

Compact and firm, smooth and thin. It is better not to be touched.

**Chronic injured ligament fascia:**

Thickened and fluffy, touchable and tender on palpation



## 1. Kneading

Rhythmic circular movement on one acupoint for 1-2 minutes, 60-80 per minute.

Tips: pre-match massage

Too much exciting or nervous, acupoint stimulation on neck, head.



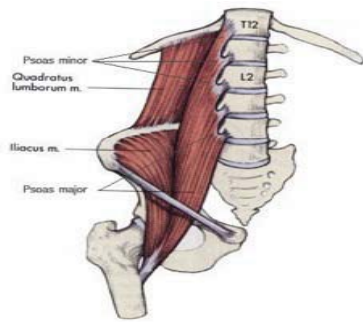


## 2. Pressing

Repetitive vertical force is applied on deep muscles, ligaments and tendons. Duration for seconds to minutes.

Tips: Low back pain due to psoas tight.





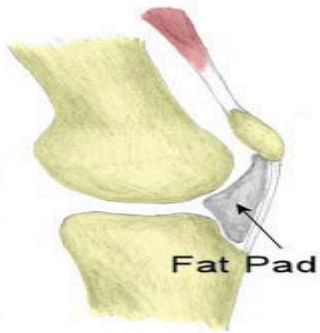
### 3. Nipping

Repeated pointing stimulations (usually using finger tip, nail) applied on injured point, suitable for chronic inflammation (bursitis, fat pad) . for 5-10 minutes, 100-120 per minute.

Tips: Infrapatellar fat pad impingement



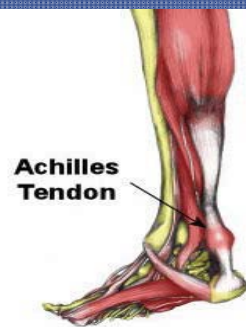




#### 4. Pinching

Rhythmic alternate pinching on two opposite points, suitable for subcutaneous tissue, muscle and tendons. For 3-5 minutes, 20-120 per minute.

Tips: Achilles tendinitis treatment





### 5. Pushing

Rhythmic pushing towards the direction required, suitable for subcutaneous tissue, muscle and tendons. For 5-10 minutes, 30-60 per minute.

Tips: Ankle sprain.

Repeated Manualpilation with ice water bath alternately.

Ice(5min.) –pushing(5min.)-ice(5min.)-pushing-(5min)-ice(3min.), twice a day for 3-5 days



© Healthwise, Incorporated







## 6. Scraping

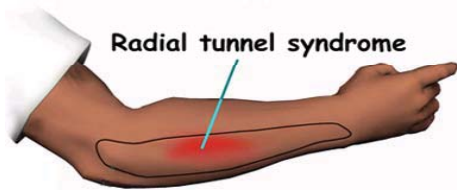
Rhythmic pushing towards the direction required, suitable for subcutaneous tissue, muscle and tendons. For 5-10 minutes, 30-60 per minute.

Tips: Tennis elbow.



Pain area

Radial tunnel syndrome



## 7. Plucking

*Like the action plucking string on an instrument*

Plucking can be used for deep muscle, tendons and nerve. The treating muscle, tendon and nerve are being picked, pulled and plucked quickly, and then sudden released to spring back to original position. Normally repeated 2-3 times.

Tips: strong stimulation activating tissue.  
Used pre-match

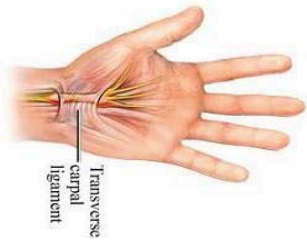


## 8. Yanking

Yanking is suitable for adhesive tissue and scars. Apply pressure to rub it back and forth in order to break the adhesion and thickening. Repeated 5-10 times.

Tips: Carpal tunnel syndrome





Thank You !

- [HOME](#)
- [WSF»](#)
- [OLYMPICS](#)
- [EVENTS»](#)
- [ATHLETES»](#)
- [TECHNICAL»](#)
- [ANTI-DOPING](#)
- [REFEREES»](#)
- [RULES & REGS»](#)
- [DEVELOPMENT & COACHING»](#)
- [LINKS»](#)
- [SITEMAP](#)
- [ARCHIVE»](#)

Enter search keyword  [Search](#)



- [All News](#)
- [Major Event News»](#)
- [Regional News»](#)
- [Top Stories](#)
- [Videos](#)
- [World Tour News»](#)
- [WSF News»](#)

[Categorized](#) |

### Calling the Shots

Get your copy of the WSF's referee training DVD, with a host of decisions and explanations

## CMT in Sports Training and Competitions

Posted on 15 September 2010.



[Print](#) [PDF](#)











### Related Stories

### Leave a Reply

Logged in as [lorraine](#). [Logout](#) »

- [Latest](#)
- [Popular](#)
- [Comments](#)
- [Tags](#)

### Subscribe

-  [England Seeded To Reclaim Women's World Title In New Zealand](#)
-  [Nicol David Celebrates Half Century In Qatar](#)
-  [Karim Claims Qatar Classic Crown](#)
-  [Grinham Downs Duncalf In Qatar Revenge](#)
-  [Darwish Dashes Matthew Title Hopes In Qatar](#)
-  [Now Nour Meets Nicol In Qatar](#)
-  [Revitalised Shabana Ousts Willstrop In Qatar Quarters](#)
-  [El Tayeb Marches On In Qatar](#)
-  [Seeds Safely Through In Qatar](#)
-  [WSF President In Fact-Finding Visit To China](#)

### World Champs coming up

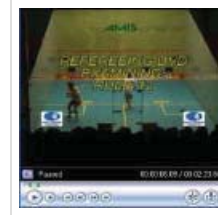
Women's World Teams: in 5 days

Saudi PSA Men's World Open: in 8 days

**WorldSquash on Twitter**

**Subscribe by Email**

Enter your email address to receive a daily update :



**News Calendar**

NOVEMBER 2010

M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

« OCT

**Squash Links**

- [PSA](#)
- [SquashInfo](#)
- [SquashSite](#)
- [WISPA](#)
- [World Squash](#)

**Login/Register**

- [Site Admin](#)
- [Log out](#)
- [Entries RSS](#)