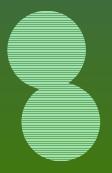




Yvonne YUAN, PhD Head of Office, HKADC

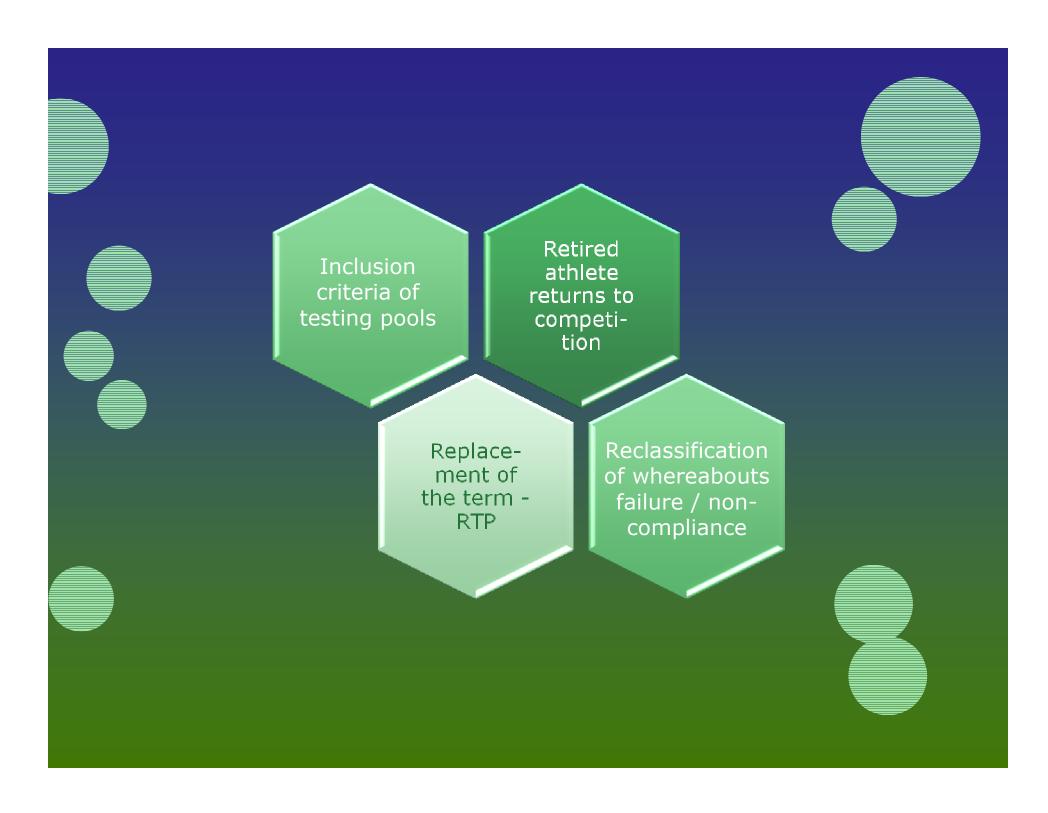


## Content



- Blood testing
- Inadvertent doping
- Updates at the international level





# **Inclusion Criteria of testing pools**

	Pool A	Pool B	Pool C
	Athletes receiving	Athletes receiving	Athletes being
	Elite Training	ETG and belong to	nominated to
<b>F</b>	Grant (ETG) and	Elite B+, Elite B or	represent Hong
	belong to Elite A+	Elite C categories,	Kong in major
	or Elite A	and selected	games but not
	categories	athletes in sports	included in Pool A
		targeted for	or Pool B
		doping control	

# Retired athlete returns to competition

Returns to National Events only

- No need to submit whereabouts
- Agree to be tested if required

Returns to International Events

- Follows IF's related regulation
- 3-12 months of advance notice to IF and HKADC
- Submit whereabouts



Diff pools have diff whereabouts requirements

Non-compliance in diff pools have diff consequences

Pool C athletes' responsibility only relate to the specific major games

Athlete's status in the HKADC testing pool may change

Removed from or included in Pool C – all WF/WN will be cancelled

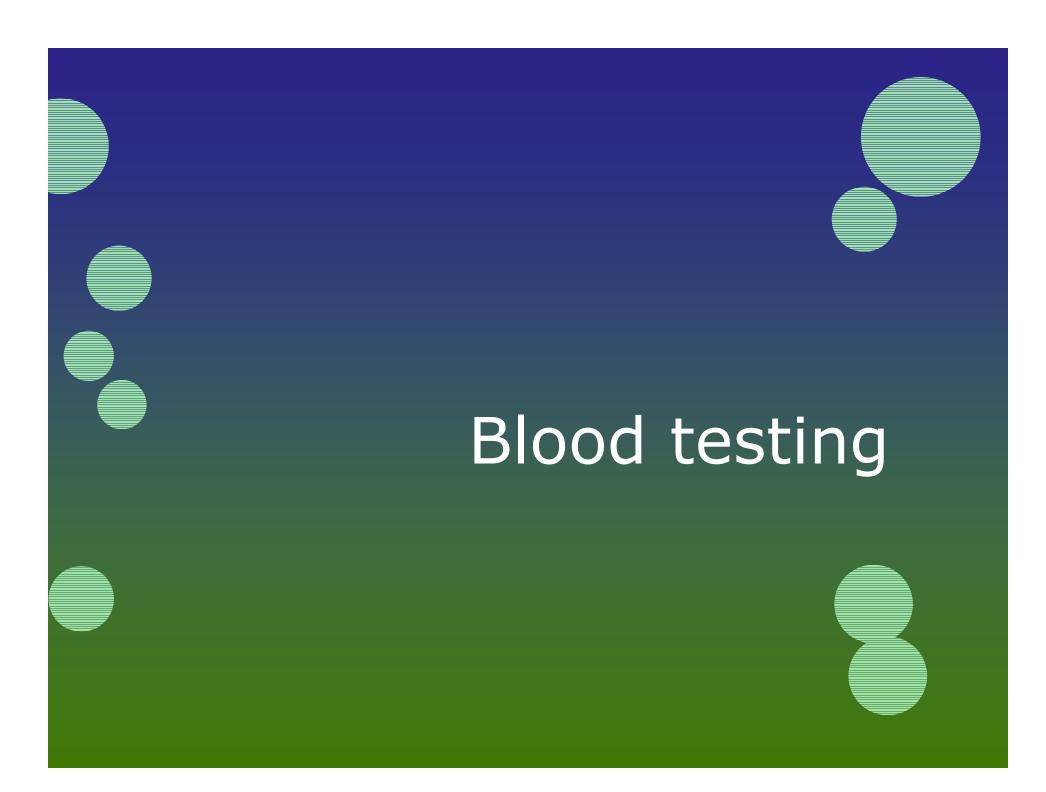
Downgraded from Pool A to B – WF becomes WN

Escalated from Pool B to A – WN will be cancelled

Later returns back to the original pool – previous WF / WN will be restored

# Replacement of the term 'RTP'

- HKADC Anti-Doping Rules written in 2008
- RTP used through out the Rules
- 3-tier testing pool system set up in Sept 2009
- Replacement of the term helps to clarify the Rules
- Do not affect implementation of the Rules



#### 2009

•first athlete being tested positive for hgh

### 2010

- 258,267 tests 5,000 blood tests (i.e. 2 %)
- •3 positive cases on hgh

WADA recommended not less than 10% of all samples collected are blood samples



# **Blood testing**



Detection of substances / methods not easily detected in urine

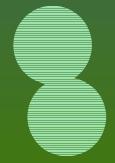
Blood transfusion, growth hormone, insulin, CERA

- Previous hgh test –
   isoform test detect use
   within 48 hrs
- Latest hgh test –
   biomarker test detect use within 2 weeks



## Urine testing

- Non-invasive
- Detection of most substances in the Prohibited List



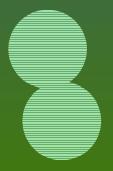


## Blood test

- Test for present of prohibited substance <u>at</u> the time of sample collection
- Indication of 'positive test'

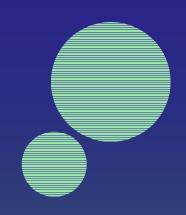
## Biological passport

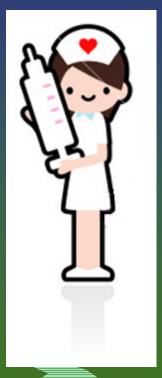
- Monitor changes in a no.
   of parameters in blood
   over a period of time
- Abnormal findings may serve as
  - Indication of 'positive test'
  - Intelligence for target testing

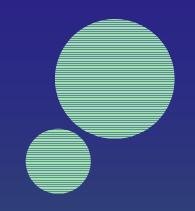


# **Blood sampling procedure**

- Doping control team
  - Doping Control Officer + Blood Collection Officer
- Notified and escorted
  - Presence of athlete representative preferred
- Seated for 10 min
- Select 'blood sample collection kit' and 'sample transport kit' from at least 3 of each
- Draw 6-10 ml blood
  - Seal in A/B containers
- Complete Doping Control Form

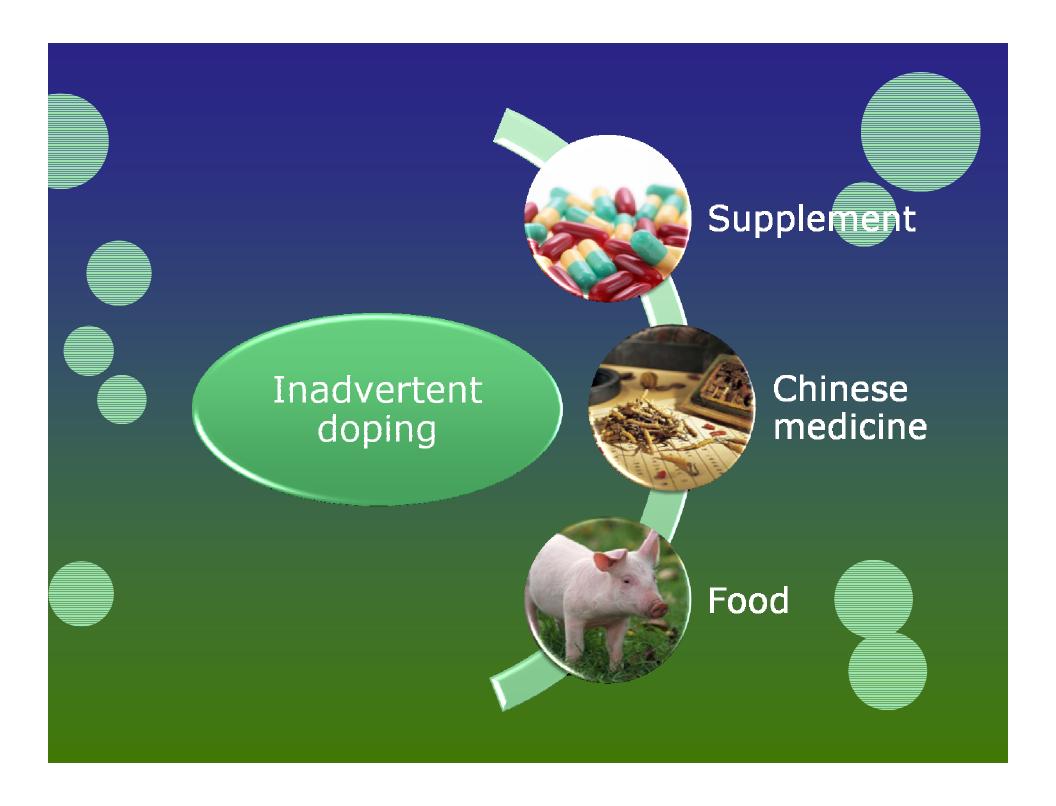


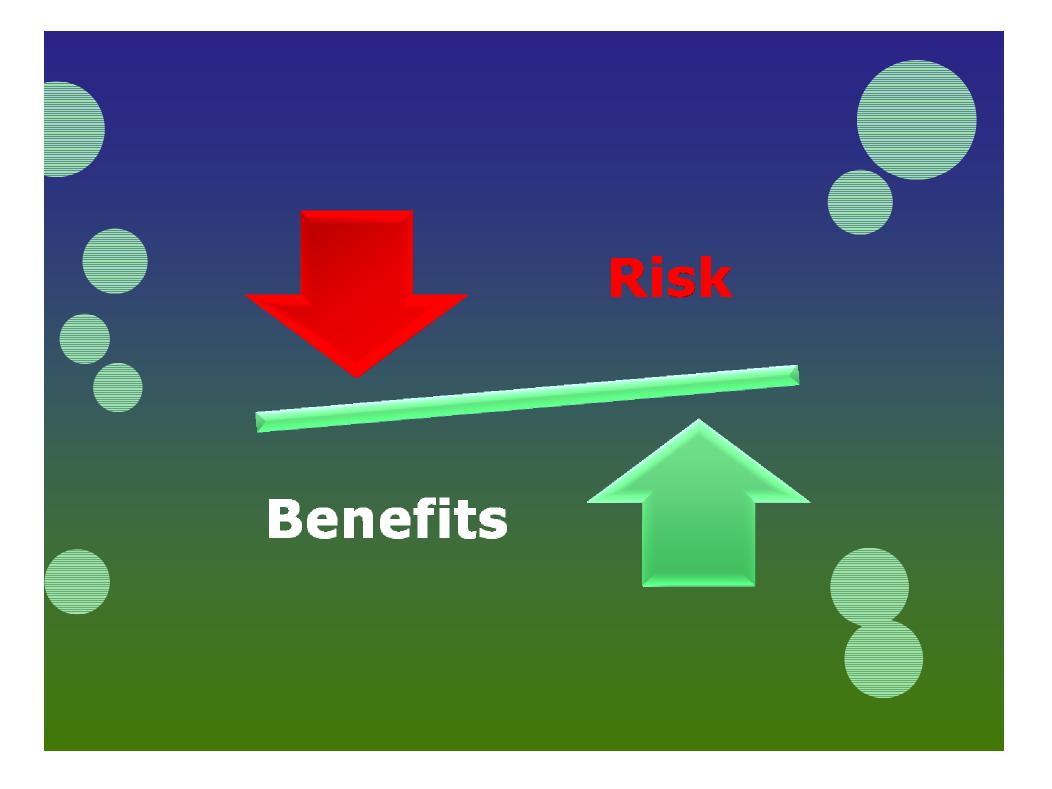


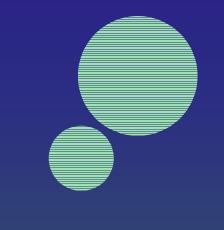


# Real threats to the HK athletes

















Natural is healthy and beneficial

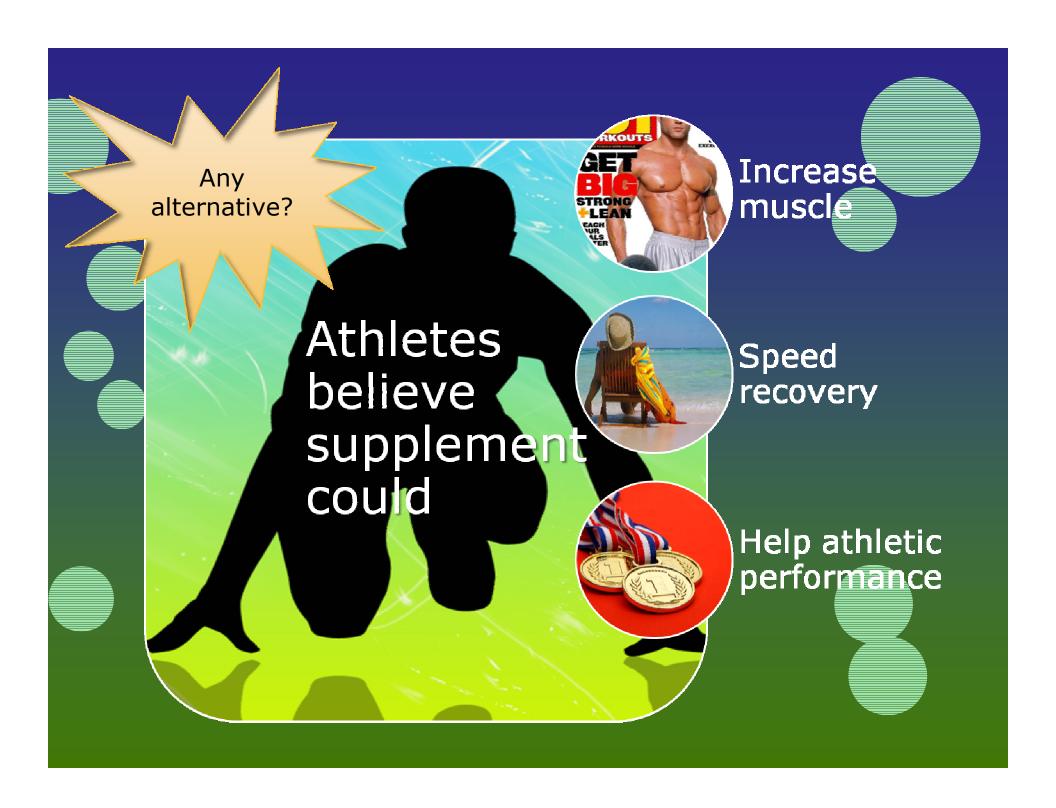


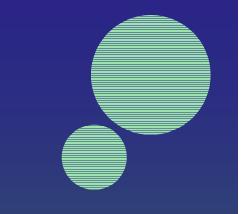
More is better

Almost never true

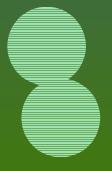
Athletes are deficient in important compounds

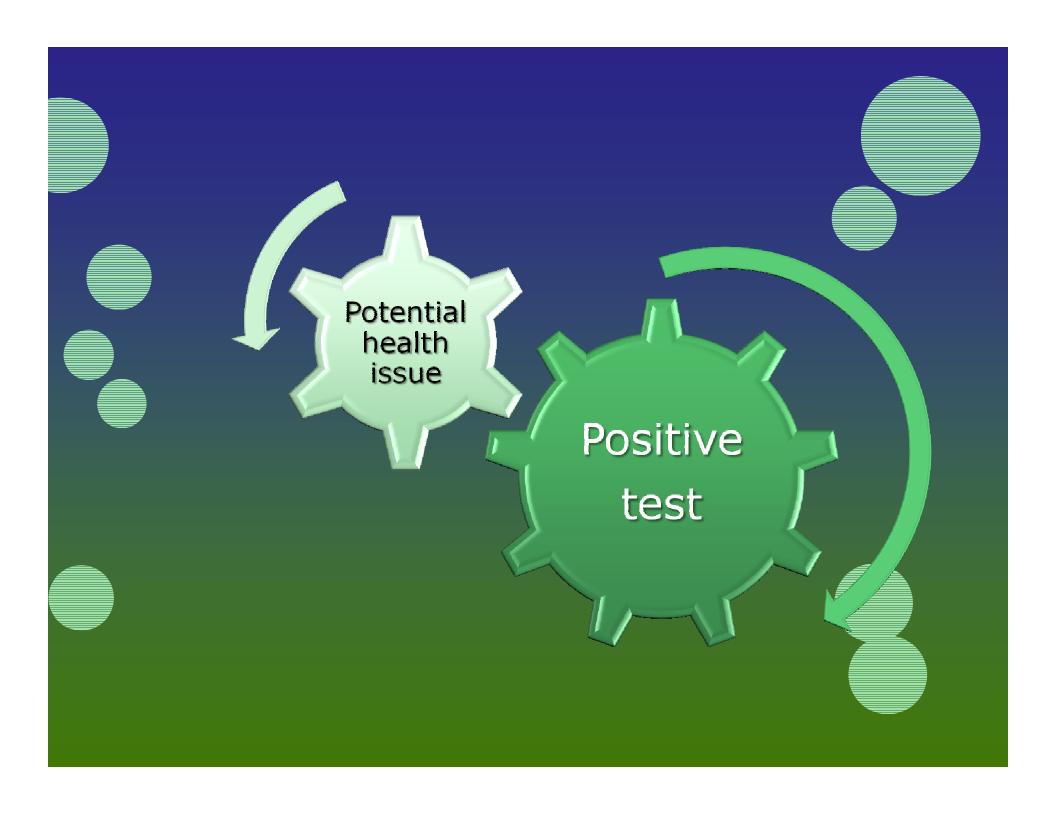
Almost never true













Unlike medicine, it is impossible to be 100% sure that a supplement is safe (free from positive test).





- •Clinical trails to prove safety and efficacy before launch in market
- •Strict regulation on the label and production process

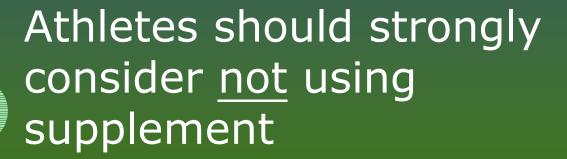
Known chemical composition

# **Supplement**

- •Proof of unsafe → Remove from market
- Label could not be trusted
  - Use of misleading names
  - Contamination

Unknown chemical composition



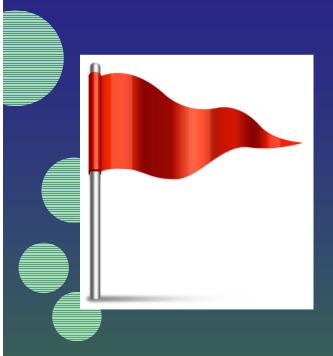




# Ways to reduce risk (not eliminate)

- Choose ingredients, not desired results
- Scrutinize the company
- Third party testing
  - Batch specific, test battery, detection limit
  - News and updates
  - Red flags





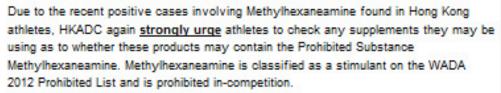
# Make with 'too good to be true' claims

- muscle building
- weight loss
- sexual enhancement
- •energy `supplement'
- Advertise as 'newest scientific breakthrough', 'secret formula'
- Claim to be alternative to prescription medicine
- Contains herbal ingredients

#### Substance Alert: Methylhexaneamine in Supplements

16/04/2012

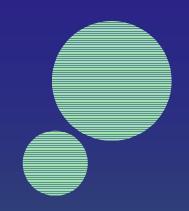




Methylhexaneamine is commonly labeled under different names and for example could be

found labeled as "1,3-dimethylamylamine" in the supplement "Jack 3d". Various names of Methylhexaneamine include:

Methylhexanamine	Geranamine	2-hexanamine, 4-methyl-(9CI)
1,3-dimethylamylamine	Geranium oil, extract	1,3-dimethylpentylamine
dimethylamylamine (DMAA)	dimethylpentylamine	Pentylamine
Forthan	4-methyl-2-hexanamine	Pentylamine,1,3-dimethyl
Forthane	4-methylhexan-2-amine	4-methyl-2-hexylamine
Floradrene	2-amino-4-methylhexane	1,3-dimethylamylamineforthane
dimethyhexaneamine	2-hexanamine,4-methyl-	C7H17N





#### 籲市民勿服兩無標示成分減肥藥



(星島) 05月 22日 星期四 08:46PM

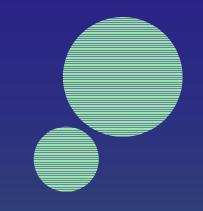
衛生署呼籲市民不要購買或服用兩種分別名為「芭莎第3代全效加強版OB蛋白瘦身素」及「自然瘦」的減肥產品,化驗結果顯示,兩減肥藥含有未有標示的成分「酚酞」及「西布曲明」,可能引致嚴重的副作用。

衛生署是跟進有市民查詢上述 兩款產品和展開調查後,作出 以上呼籲。該兩名市民曾在互 聯網上購得有關產品,而其中 一位市民聲稱會服用「芭莎 3代全效加強版〇B蛋白瘦身 素」。但未出現身體不適情 況。 「酚酞」曾用作治療 便秘,因可能致癌而被禁



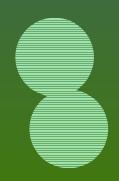
「西布曲明」 **Stimulants** 的減肥西藥成 **Stimulants** 員指導下才可使用 **Stimulants** 

包括可能導致血壓上升及心跳加劇,有心臟病≥的人士不應服用。





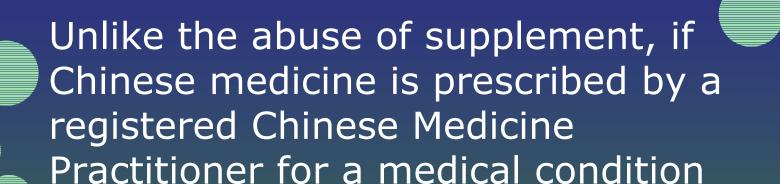
# How about Chinese medicine?





- level of heavy metals, pesticide residue, & microbiological content regulated
- chemical composition and conc. of active ingredients regulated
- Risk of contamination during extraction and processing

Unknown chemical composition



Genuine need

#### 含西藥的中成藥須回收

(明報) 05月 14日 星期三 09:45PM



衛生署<sup>3</sup> 忠告市民不要購買及服食一種名寫宜利袪風舒筋丸的中成藥,因該產品含未有標明的西藥成分。

衛生署發言人表示該產品是根據《中醫藥條例》(第549章) 獲過渡性註冊資格的中成藥, 故此,不應含有西藥成分。

他說產品含微量「地塞米松」 dexamethasone),對健康構 成不良影響的機會很微。不 過,產品並沒有標明該成份, 亦沒有根據《藥劑業及毒藥條 例》註冊,不能確保其整體安 全、品質和成效。



寫保閩

# Glucocorticosteroids

面回收有确定

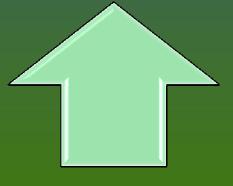
在調查期間,署方人員在今午展開行動,在製造商的處所檢獲約30樽產



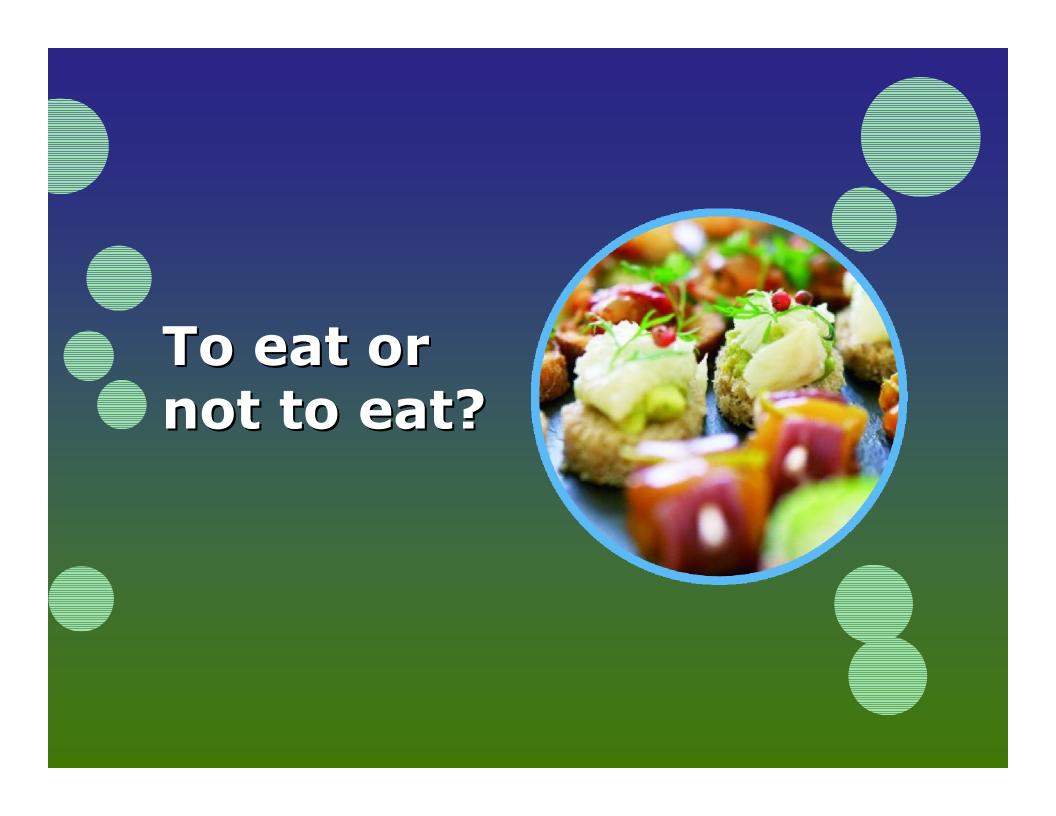


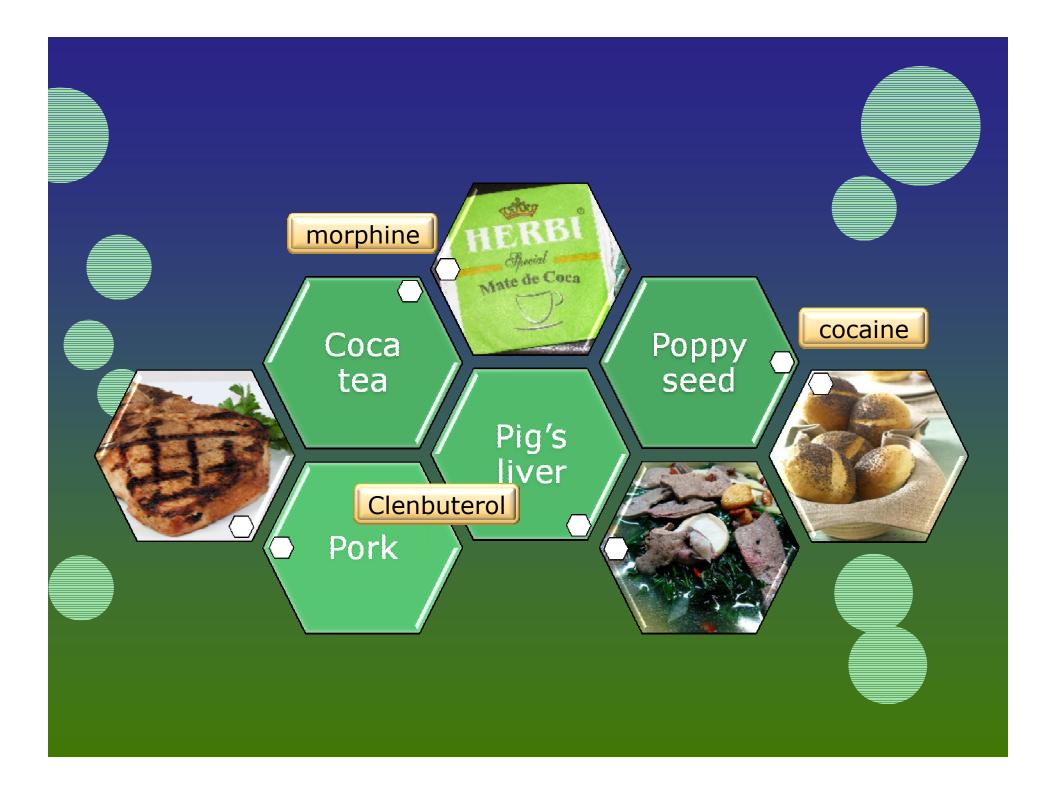
Safety ? Any alternative?

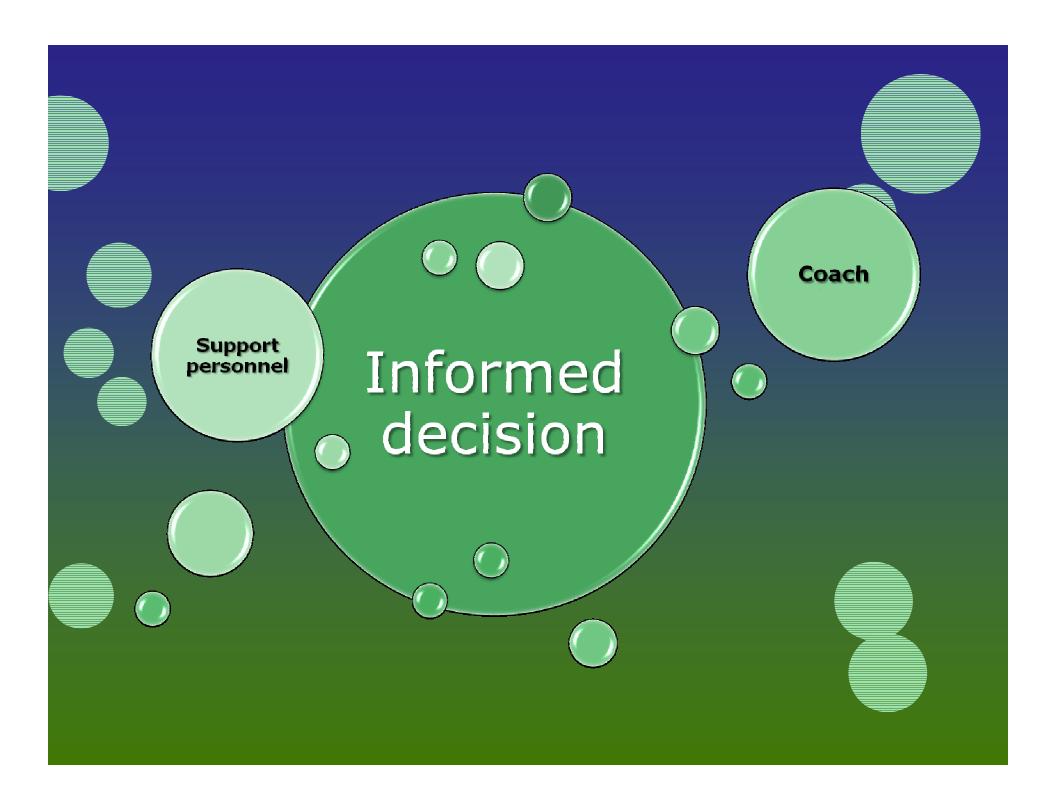
Efficacy
Genuine need

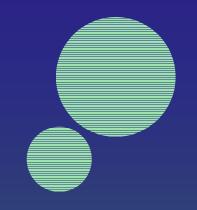




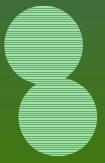








# Updates at the international level



#### **CODE REVIEW PLAN**



2012	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MAJOR MILESTONES	28 NOV 2011 Letter to all stakeholders Code Review begins		Analysis of key areas and drafting	Analysis of key areas and drafting	17-18 First Code draft tabled at EC & FB	01 Send redlined Code to all stakeholders			10 Presentation on main outcomes to EC	Analysis of key areas and drafting	17-18 Second Code draft tabled at EC & FB First IS tabled at EC	01 Se cond Code draft and first IS drafts sent to all stakeholders
CONSULTATION PHASES	1** CODE CON 28 NOV 2011 -	SULTATION PHA 15 MAR 2012	SE			2** CODE CONSI 01 JUN - 10 OCT	ULTATION PHASE	<b>:</b>				3rd CODE CONSULTATIO PHASE 01 DEC - 01 MA
						1* CONSULTATI 01 JUN- 10 OCT	ION PHASE FOR I	ST, IS TUE, IS PI	PPI, IS L (IS)			2 <sup>rd</sup> IS CONSULTATIO PHASE 01 DEC - 01 MA

2013	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MAJOR MILESTONES			Analysis of key areas and drafting	Analysis of key areas and drafting	Third Code draft tabled at EC & FB	Editing drafts (Code & IS)	Editing drafts [Code & IS]	Editing drafts  Code & IS	Final drafts tabled at ExCo (Code & IS)	Final drafts (Code & IS) sent to all	Final drafts tabled for approval to	
			and aroning	and braiting	Second IS drafts tabled at EC				(oute a lo)	stakeholders	EC & FB	
CONSULTATION PHASES	3 <sup>rd</sup> CODE CONSULTATION PHASE 01 DEC 2012 - 01 MAR 2013				Feedback and direction from EC						PRESENTED ATTHE WORLD	
	2 <sup>nd</sup> IS CONSUL PHASE 01 DEC 2012-										CONFERENCE ON DOPING IN SPORT	

FB Foundation Board EC Executive Committee IS International Standards

IST International Standard for Testing

ISTUE International Standard for Therapeutic Use Exemption
ISPPPI International Standard for Protection of Privacy and Personal Information

ISL International Standard for Laboratories



# Definition of ADRV

- (Refusing) Evading sample collection is an ADRV
- Any combination of three missed tests and/or filing failures within a twelve-(an eighteen) month period is an ADRV
- New ADRV Prohibited Association



### Sanctions

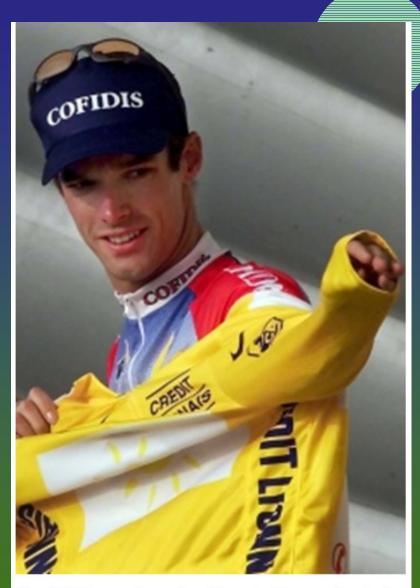
- Positive test caused by <u>contaminated products</u> – warning to two years of ineligibility
- Positive test caused by <u>Substances of Abuse</u> rehabilitation program instead of ineligibility
- To encourage assistance to discovery other ADRVs – possibility of full amnesty
- More details on aggravating circumstances – 4 years of ineligibility for first violation

## Financial sanction and related

- Remains ineligible until all cost to CAS has been settled
  - May include appropriate recovery of costs related to ADRV
  - May apply financial sanction in cases for maximum period of ineligibly has been applied



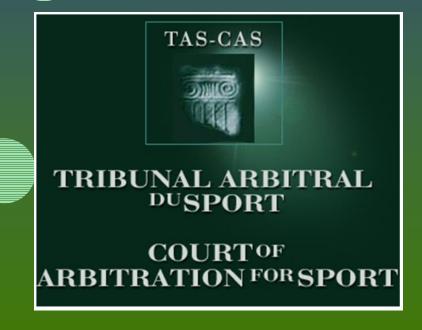
Dwain Chambers shows off his gold medal after success in the men's 60m final at the 2010 World Indoor Athletics Championships in Doha, Qatar.



David Millar puts on the Tour de France leader's yellow jersey back in 2000.

# Osaka Rule (IOC) and by-law of BOA

- IOC bans any athlete who has received a doping suspension of more than six months from competing in the next Olympic
- British Olympic Association bans any convicted drug chest for life from the Olympic

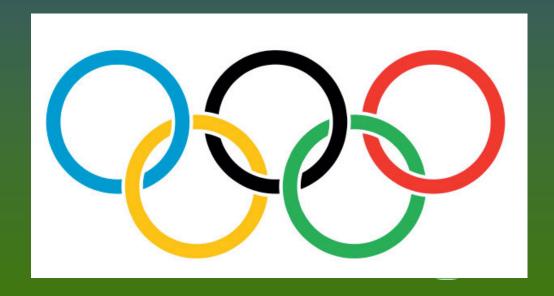


#### CAS

- •overturns the rules
- •considers these as 'double jeopardy'

# Limitation to participation at Olympic Games

Athletes convicted of serious doping offences will not be allowed to participate at the next Summer / Winter Olympics







- Trafficking
- •Administration
- Complicity
- Aggravating circumstances

# Role of stakeholders

#### NADO

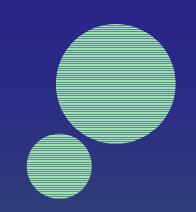
Automatic investigation on athlete support personnel

- -ADRV by minor
- -Supporting > 1 athlete

#### Government

Legal basis for sharing information with ADO and sharing of information among ADOs





- More than 6,200 tests
- Biological passport, intelligent testing
- 150 scientists work around the clock
- Looking for more than 200 prohibited substances
- Providing results within 24 hours
- Samples stored for 8 years
- Improved detection for blood transfusion
- Total data analysis (metabolomics)

