INTRODUCTION

13.1 In its Interim Report the Committee recommended that the Commonwealth Government:

request the Australian Sports Drug Commission, and the Australian Olympic Federation, to adopt a strong international role in order to take steps to ensure that the Committee’s views are presented to major international forums (eg. Second World Anti-Doping Conference in Moscow and the Dubin Inquiry) and to promote the world-wide acceptance of mandatory random and targeted drug testing regimes and the development of uniform policies. This is necessary in order to ensure that Australian athletes are not penalised because of Australia’s strong stance on this issue. (Interim Report, p. xxi)

13.2 It was a major concern of the Committee that Australia’s elite athletes should not be disadvantaged in any way in international competitions by the Committee’s proposals. In particular the Committee felt that any independent out-of-competition testing program conducted in Australia could place our nation’s athletes at a real or perceived disadvantage relative to their international competitors if other countries did not introduce testing regimes of equal rigour.

13.3 Evidence collected since the inquiry began has contained numerous references from individual athletes about their concern that their competitors are using ergogenic aids and that this concern could be a factor in any decision to do the same.

13.4 Ms Lisa Martin suggested that if Australian sport became drug free:

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in track and field, I would say in events below 800 metres and especially for women, including throws and jumps, it would leave us far behind the rest of the world. Once you move to middle distance events we would still be competitive, but definitely not in throws, jumps or sprints. (Evidence, p. 1671)

13.5 Mr Mike Hurst a coach noted:

Darren Clark and Maree Holland would ... be able to give [the Committee] a real sense of what it is like 'out there' competing against fully supported Soviet and American athletes ... of the temptation to take drugs 'just to start on equal terms' with their opponents. (Evidence, pp. 464-5)

13.6 One concern to the Committee was the view expressed by Mr Haynes concerning an Australian elite female athlete:

What do you do if you throw the qualifying standard, you have been tested drug free, and somebody tells you that you are not competitive? You have two choices. (Evidence, p. 1163)

13.7 Athletes who make the decision not to use performance enhancing drugs also become extremely discouraged when they are defeated by athletes they believe may have been using drugs. This explanation for their defeat serves only to compound the dilemma of their younger colleagues who have yet to make their decision whether or not to use drugs.

11.6 Mr Darren Clark advised the Committee:

In 1984 I was in the top four then I went down to the top 16. I might have a bit of a chip on my shoulder but I just thought everyone in the world was on anabolic steroids. (Evidence, p. 477)

11.9 In her evidence to the Committee, Maree Holland recalled:

the race that I can in, I would always have a man's race. I actually saw one of the girls in
the morning and I thought she was a man... She was as hard as nails. Her face was a man's face with a square jaw and thick neck. (Evidence, p. 480)

13.10 Miss Reeland Boyle told the Committee:

Obviously the rest of the world is so advanced in the use of anabolics and the rest of it that we are losing ground all the time. You have basically got to take drugs to be in there is certain events these days. (Evidence, p. 1725)

13.11 A similar view was expressed by Miss Lisa Martin.

The reason why I keep running is because I am in the marathon and because I think I can be the best in the world without drugs. If I was a shot-putter I would have made the decision not to use drugs and I would not be bothering to throw any more. It is as simple as that. (Evidence, p. 1668)

13.12 The Committee therefore accepted the responsibility of ensuring that the relevant bodies such as the Australian Olympic Federation and the Australian Sports Drug Agency took all available steps to encourage independent and equally stringent testing arrangements in all countries whose athletes compete against Australian athletes at international events.

INTERNATIONAL INITIATIVES

Background

13.13 The first significant international anti-doping development occurred in 1950 when the Council of Europe (a group of 21 western European nations founded in 1949) tabled a resolution against the use of doping substances in sport. This resolution was based on medical, ethical and moral principles.

13.14 During the 1960s and 1970s various nations enacted national anti-doping legislation.
13.15 The first national sporting bodies to undertake domestic anti-doping initiatives were:

- Swiss Sports Association 1969
- Danish Sports Federation 1978
- Deutscher Sporthilfe 1979
- Norwegian Sports Confederation 1979
- Finnish Sports Federation 1982

13.16 In 1967 the Medical Commission of the International Olympic Committee was established and conducted the first drug tests during the 1968 Olympic Games in Mexico City and Grenoble.

13.17 Drug testing programs in Australia commenced in the early 1980s.

World Conferences

First World Conference on Anti-doping in Sport

13.18 In a report to the Committee the Chief Executive of the Australian Sports Drug Agency advised that the recent momentum for international change began with the First Permanent World Conference on Anti-doping in Sport in Ottawa in June 1988. An informal international advisory group was formed to guide the development of this Conference. This group was subsequently expanded and formalised into the International Working Group on Anti-Doping in Sport (IWG). The membership of the IWG is as follows:

- Prince Alexandre de Merode (IOC) Co-Chairman
- Mr. Lyle naked (USA) Co-Chairman
- Dr. Don Catlin (USA)

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13.19 Its agreed purpose was to discuss a strategy and plan for furthering the international anti-doping campaign, specifically for the advancement of the International Olympic Charter Against Doping in Sport (see Appendix II); to aid with this campaign where appropriate and to carry on the work of the world conferences.

13.20 The IWG focused on four key aspects of anti-doping initiatives. Firstly, the development of a series of annexes to support the Charter and to provide the necessary background for its implementation. Secondly, the design of a strategy for the advancement of the Charter throughout the world. Thirdly, the organisation and provision of a progress for the Second Permanent World Conference on Anti-Doping in Sport. Lastly, to establish a forum to exchange information and suggestions on the next global anti-doping campaign.

13.21 The IWG prepared and finalised the following annexes:

- The IOC list of doping classes and methods of doping (see Appendix 6).
- The IOC requirements for accreditation of laboratories and good laboratory practice (see Appendix 12).
- A model national anti-doping program (see Appendix 13).

13.22 In addition draft versions of the following annexes were prepared for discussion in Moscow at the Second World Conference.

- Standard operating procedures for doping control.
- Principles and guidelines for out-of-competition testing.
. Rights and responsibilities of athletes and their entourage.
. Guidelines for sanctions and penalties. (Evidence, pp. 4015-38)

Second World Conference on Anti-doping in Sport

11.23 At the invitation of the Soviet Government, the Second Permanent World Conference on Anti-Doping in Sport was held in Moscow from 10-12 October 1989 under the chairmanship of Prince Alexandre de Merode, Vice-President of the International Olympic Committee and Chairman of the IOC Medical Commission and Mr Nicolai Basak, Chairman of the State Committee for Physical Culture and Sport of the USSR.

13.24 The Conference was structured to receive a series of progress reports on activities and programs since the first conference in Ottawa. Four themes were addressed through a series of workshops with the intention of exchanging experience and information on the development and implementation of national anti-doping programs and to provide comment on the proposed additions to the International Olympic Charter Against Doping in Sport.

13.25 A total of 181 delegates from 31 countries participated in the Moscow Conference. These were representatives from governments, National Olympic Committees, National Sporting Organisations, International Sport Federations; laboratory directors and personnel, the IOC Medical Commission, the IOC Athletics Commission, the World Anti-doping Agency, the Council of Europe, the European Sports Conference and UNESCO.

13.26 Australia was represented by the President of the Australian Olympic Federation, Keaven Cooper; Member of the Medical Commission of the IOC, Dr Ken Ritch; Chief Executive of the Australian Sports Drug Agency, Steve Haynes; and Chairman of
The Senate Standing Committee on the Environment, Recreation and the Arts, Senator John Slack.

13.27 The Conference considered the following topics:
- The Model National Program for Anti-Doping;
- Out-of-competition testing;
- Education and information;
- Rights and responsibilities of athletes and their entourage.

13.28 The Committee notes that Recommendations from its Interim Report formed a significant part of the topics discussed in Moscow.

13.29 In his report on the conference Mr Haynes noted that:

Delegates welcomed the progress that had been made since the 1st Permanent World Conference in Ottawa noting in particular:
- the adoption by the IOC [International Olympic Committee] at its 96th Session in Seoul of the Charter which was produced in Ottawa as the [International] Olympic Charter Against Doping in Sport;
- the agreement to the principles of the Charter and to the need to harmonize anti-doping rules and procedures by the Association of Summer Olympic International Federations at its meeting with the IOC in April 1989;
- the support for national adoption of the Charter by member states at the Second UNESCO Conference of Ministers and Senior Officials Responsible for Sport in Moscow, November 1988;
- the endorsement of the Charter by the 25 nations attending the 6th Conference of European Ministers Responsible for Sport.
The Conference made the following recommendations:

that as part of the upcoming amendments to the IOC Charter consideration be given to changes that reflect the importance of anti-doping in particular with regard to athletes eligibility, IOC responsibilities and to the inclusion of the international Olympic Charter against Doping in Sport as part of the bylaws of the IOC Charter. (Evidence, p. 3901)

The Conference also:

- re-emphasized their common concern for the need for international harmonization, co-ordination and uniformity.
- stressed the shared responsibility of governments and sport for the anti-doping campaign and encouraged further collaborative efforts in this regard.
- encouraged the development of further bi- and multi-lateral agreements between countries which utilise various approaches including cross-testing, as a means of building mutual understanding, trust and a common approach.
- emphasized the importance of the Olympic ideals to education programmes to reinforce the ethics of sport and fair play.
- supported the staging of the world Conference as a valuable forum for the exchange of views and information between governments and sport and as a means of encouraging mutual understanding.
- lent their support to the continuing work and co-ordination efforts of the International Working Group.
- agreed that sporting nations and international sport authorities of the world gather again in two years in Norway for the Third Permanent World Conference on Anti-Doping in Sport. (Evidence, pp. 3901-2)

International Agreements and Co-operation

In his evidence to the Committee Mr Lyle Hakowy, Assistant Deputy Minister, Ministry of Fitness and Amateur Sport in Canada noted:

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the real catalyst for change is coming about where countries themselves are undertaking to enter into arrangements between them and among them to bring about a common approach and common standard...I guess it is our considered belief that the real agreement for change is going to occur by countries coming together and developing mutual agreements. (Evidence, pp. 4136-7)

International Olympic Charter Against Doping in Sport

13.33 The concerns expressed by the Committee at the beginning of this Chapter are clearly represented in key elements of the Charter which was revised in Moscow.

ACREDITED LABORATORIES

It is universally agreed by sport and governmental authorities involved with the doping issue, that the analysis of samples taken during doping controls must be undertaken only at IOC accredited laboratories. This is essential to ensure that the highest standards of scientific analysis are maintained, and to ensure that samples and the results of sample analysis are handled in accordance with ethical standards set out in the IOC Medical Commission's document on 'good laboratory practice'. (Evidence, p. 4009)

CO-OPERATION WITH CUSTOMS AND CIVIL AUTHORITIES

Several aspects of the anti-doping campaign must be pursued through close and careful co-operation with civil authorities.

In some countries, doping is regarded as being sufficiently serious that the effort to control and eradicate it is a matter for civil and criminal authorities. In other countries, the rules against doping are maintained only by sporting bodies.

In both cases, however, the civil authorities are key players in dealing with certain areas of the anti-doping campaign.

We know that the elimination of doping requires not only a focus on the ultimate user - the athlete; but also on those responsible for the supply and distribution of banned substances. The 'criminalization' of the

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importation of and trafficking in doping agents can be vital to the curtailment of doping in sport.

The apparent free flow of some doping agents would be stemmed in many countries if the classification of these drugs were elevated from 'controlled' or 'restricted' status to that of an 'illegal' substance. While the international conventions surrounding the classification of drugs make such measures difficult, steps may still be taken within countries to control the unrestricted distribution of many doping agents.

Civil authorities and self-regulating bodies related to the pharmaceutical industry and the medical and pharmacy professions may be helpful in tracking the distribution of otherwise legal drugs which may be being abused for doping purposes. Patterns of distribution of doping agents may provide leads for further investigation of the unethical or illegal distribution of banned drugs.

The national co-ordination authority for doping should collaborate with the civil authorities in the areas noted above. (Evidence, pp. 404-15)

INTERNATIONAL ACTIVITIES

Countries will need to undertake a number of measures with other nations if the full impact of national anti-doping initiatives is to be achieved. Included on this list are the following items:

11.1 arranging for testing of one's athletes when they are resident, training or competing in another country;

11.2 cooperation on investigation of trafficking or importing activities;

11.3 access to an IOC accredited laboratory in another country for analysis of doping control samples;

11.4 restriction of formal bilateral sport relations to countries which have taken a pro-active stand against doping in sport;

11.5 access to expertise and experience of other countries;
11.6 Support to representatives of national sport federations to advocate at the IF (International Federation) level for stronger measures against doping in sport.

Following the adoption of the International Olympic Anti-Doping Charter by the IOC in September 1988 and the endorsement in principle by UNESCO of the Charter, countries committed to the eradication of doping in sport should sign the Charter and work towards the implementation nationally, bilaterally and multi-laterally of its essential elements. (Evidence, p. 4075)

European Anti-doping Convention

12.34 Mr George Walker, from the sports section of the Council of Europe outlined the development of the European Anti-Doping Convention by the Council (see Appendix 10). The articles in the convention reinforce those concerns of this Committee expressed at the beginning of this chapter. Specifically:

ARTICLE 4

Measures to restrict the availability and use of banned doping agents and methods

1. The Parties shall adopt where appropriate legislation, regulations or administrative measures to restrict the availability (including provisions to control movement, possession, importation, distribution and sale) as well as the use in sport of banned doping agents and doping methods and in particular anabolic steroids.

2. To this end, the Parties or, where appropriate, the relevant governmental or non-governmental organisations, shall make it a criterion for the grant of public subsidies to sports organisations that they effectively apply anti-doping regulations.

3. Furthermore, the Parties shall:

a. assist their sports organisations to finance doping controls and analysis, either by direct subsidies or grants, or by recognising the costs of such controls and analyses when determining the overall...
subsidies or grants to be awarded to those organisations.

b. take appropriate steps to withhold grant of subsidies, from public funds, for training purposes, to individual sportsmen and sportswomen who have been suspended following a doping offence in sport, during the period of their suspension from the sport.

c. encourage and, were appropriate, facilitate the carrying out by their sports organisations of the doping controls required by the competent international sports organisations whether during or outside competitions; and

d. encourage and facilitate the negotiation by sports organisations of agreements permitting their members to be tested by duly-authorized doping control teams in other countries.

4. Parties reserve the right to adopt anti-doping regulations and to organise doping controls at their own initiative and on their own responsibility, and that are compatible with the relevant principles of this Convention. (Evidence, p. 4107)

ARTICLE 8

International Co-operation

1. The Parties shall co-operate closely on the matters covered by this Convention and shall encourage similar co-operation amongst their sports organisations.

2. The Parties undertake:

a. to encourage their sports organisations to operate in a manner that promotes application of the provisions of this Convention within all the appropriate international sports organisations to which they are affiliated, including the refusal to ratify claims for world or regional records unless accompanied by an authenticated negative doping control report;

b. to promote co-operation between the staffs of their doping control
laboratories established or operated in pursuance of Article 5; and

c. to initiate bilateral and multilateral co-operation between their appropriate agencies: authorities and organisations for the purposes, also on the international level, set out in Article 4.1

3. The Parties with laboratories established or operating in pursuance of Article 5 undertake to assist other Parties to enable them to acquire their own laboratories. (Evidence, p. 418)

Nordic Agreement

13.35 Among the first reciprocal agreements or conventions to be formulated was the Nordic Anti-Doping Convention which was completed in 1985. The key element of this Convention is that drug testing can be undertaken at events or out of competition without notice on any Nordic athlete competing in any Nordic country.

Joint Soviet-American Commission Against Doping

13.36 In 1986 the National Olympic Committees of the USSR and USA produced a declaration which stated a unification of their efforts to eliminate the use of doping in sport.

13.37 An anti-doping agreement between the two Olympic Committees was signed and the Joint Soviet-American Commission Against Doping was formed.

13.38 The Chairman of this Inquiry met with the Soviet American Commission in Moscow in October 1986. The members were:

Mr Baron Pittenger, Executive Director, USOC
Mr Vasily Grimyko, Vice Chairman, USSR State Sports Committee
Dr Don Catlin, USA
Dr Robert Hale, USA
Mr Edwin Moses, USA
Dr Vitali Samarov, USSR
Dr Sergei Portagulov, USSR

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13.39 The key elements of this mutual doping agreement include cross-costing, education and research programs. The agreement appears in full at Appendix 15 of this Report.

13.40 The Chairman of this Inquiry was invited to discuss an extension of this bilateral agreement to a multilateral agreement. As a result a meeting in Rome was scheduled for December 1989, two months after the Moscow conference.

The Rome Meeting

13.41 On 13 and 14 December 1989 twelve countries met in Rome to discuss the development of further bilateral or multilateral anti-doping agreements based on the USA/USSR agreement.

13.42 The countries who attended the Rome meeting were: Australia, Bulgaria, Canada (observer status), Czechoslovakia, Germany, Great Britain, Italy, Korea, Norway, Sweden, USA and USSR.

13.43 An agreement signed by representatives from those countries became operative on 1 January 1990. The agreement is reproduced at Appendix 14 of this Report.

13.44 The significance of these agreements cannot be understated. Research carried out by the Australian Sports Drug Agency shows that signatories to this agreement represent the majority of successful performers in the high risk sports at the Olympic Games held in Seoul in 1988 (see Figure 13.1). (Evidence, p. 2880)

13.45 The ASADA allocated a score of six points for each gold medal performance down to one point for sixth place. An examination of Figure 13.1 reveals that at the Seoul Games the USSR gained 20.97 per cent of the possible successes using the ASADA scale, East Germany 16.42 per cent and USA 11.6 per cent.
Those countries that attended the Rome meeting account for nearly 60 per cent of the successes in Seoul using the ASDA scale.

13.46 This Committee notes that Australia is eighth in this table indicating significant all round sporting strength in the sports at the greatest risk from the use of performance enhancing drugs and other banned doping practices.

13.47 The ASDA study indicates some obvious pairings for bilateral cross-testing arrangements, for example:

<table>
<thead>
<tr>
<th>USA</th>
<th>USSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Great Britain</td>
</tr>
<tr>
<td>West Germany</td>
<td>Bulgaria</td>
</tr>
<tr>
<td>Canada</td>
<td>Italy</td>
</tr>
<tr>
<td>Sweden</td>
<td>Czechoslovakia</td>
</tr>
</tbody>
</table>

These paired countries have similar overall sporting strengths.

13.48 However it is essential to match countries with cross-testing programs with regard to compatible strengths in specific sports. While the total strength at the Seoul Games was similar for Australia (3.35 per cent) and Korea (2.99 per cent), the compatibility on a sport by sport basis shows relative strength to Australia in swimming, rowing, cycling, and athletics whereas Korea’s strength is in the ‘fighting’ sports and gymnastics.

13.49 From the athlete’s perspective they want to know that their closest overseas competitor is also being tested. An Australian swimmer, for example, is generally unconcerned about Korean competitors.

13.50 Other bilateral agreements have already been developed. The USSR has an agreement with Bulgaria, Poland, Hungary and Czechoslovakia. A copy of this agreement was made available to the Chairman of this Inquiry by USSR Sports Ministry officials.

13.51 Clearly if East Germany were involved in a similar agreement this would add greatly to the international drug
testing webb. Fortunately there is evidence that significant changes to drug testing in Eastern Europe may occur as a result of the political reforms during late 1989.

13.52 Michael Janofsky reported in the New York Times on 15 December 1989:

Dr Claus Clausnitzer, the chief of East Germany’s only drug-testing laboratory, said today that from 1978 until last month, his staff tested all athletes selected by officials to compete outside the country, where they might be tested again. Only athletes who tested negative in Clausnitzer’s lab were allowed to go, and over the years just three had positive results at a foreign event.

But Clausnitzer, who called himself the country’s “doping police”, conceded that pre-testing might have taught athletes when to use drugs and when to stop, thus protecting them and East Germany from international disgrace.

‘The athletes knew when they would be tested before they left,’ he said. ‘So they knew how long they could take drugs and what time they had to stop their use. I am not sure we were getting the real picture of the situation with this way of testing.’

In 1987 and 1988, an Olympic year, the lab analysed 6,641 urine samples of athletes waiting to compete outside the country. Only 10 were positive for banned substances. Such a low number, combined with mounting pressures worldwide to intensify efforts against drug use, finally convinced Clausnitzer to scrap the pre-testing program.

In its place, he said, a short-notice, out-of-competition testing program, the kind now used in many other countries, will begin next month.

Another measure designed to discourage drug use was begun in October. Now, he said, the name of any athlete who tests positive will be published.

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13.53 Members of the Australian delegation at the Moscow conference, including the Chairman of this Inquiry, met with experts from New Zealand, United Kingdom, and Canada to discuss reciprocal agreements. An agreement between New Zealand and Australia was initiated earlier in 1989. Following the talks in Moscow a meeting was scheduled in Canberra for 9 December 1989 with these Commonwealth countries to draft an agreement.

13.54 The Committee notes that following the Moscow conference and prior to the Canberra meeting, testing officers from ASADA visited New Zealand, Canada, United Kingdom and Norway to inspect the testing programs in place in those countries. Reciprocal visits were made by Canada, United Kingdom and New Zealand during the same period. At the December meeting in Canberra draft agreements were developed and proposed for endorsement at a meeting of Commonwealth Sports Ministers scheduled for 4 February 1990 in Auckland.

Testing

Emerging Trends

13.55 The concern of Australia's athletes to ensure equity in testing is clearly evident in other countries.

Without question the athletes of most nations that are being subjected to reviews, inquiries, more stringent controls, enhanced anti-doping campaigns, are saying, "What about the international scene? Are we going to have a level playing field? What are we doing internationally?". That traditionally is the No. 1 or certainly one of the top two or three main questions. So any country that attempts within the country to adopt a more stringent regime is going to be facing this question. When it attempts to go internationally presumably it is going to be asking that question of other countries: How do we bring about a sense of a level playing field and a sense of mutual accountability? (Evidence, pp. 4151-2.)
13.56 Of equal importance was the need to develop appropriate techniques to detect the new generation of doping agents including human growth hormone (HGH) and erythropoietin (EPO). Mr Haynes advised the Committee that:

measuring the hormone erythropoietin, the hormone responsible for red blood cell production...is going to need some sort of quantum leap in technology. (Evidence, p. 1660)

13.57 The black market for sporting drugs in other countries also was a legitimate cause for concern to the Committee as the ready supply of black market drugs in other countries is clearly a major causal factor in the abuse of those drugs overseas.

13.58 The Committee notes that this concern is expressed in the International Olympic Charter Against Doping in Sport:

the criminalisation of the importation of and trafficking in doping agents can be vital to the curtailment of doping in sport.

The apparent free flow of some doping agents would be stemmed in many countries if a classification of these drugs were elevated from controlled or restricted status to that of an illegal substance. (Evidence, pp. 4014-15)

Growth Hormone

13.59 Unlike many hormones, such as insulin, the growth hormones of most other animal species are biologically inactive in the human. Therefore, for use in clinical situations where hormonal replacement is required human growth hormone is prepared by extraction of cadaver pituitary glands. This technique, however, has now been superseded by recombinant DNA methods (genetic engineering).
Biosassay techniques to measure growth hormone (hGH) in biological fluids lack sensitivity and specificity for human growth hormone. The method of choice for the measurement of hGH is radioimmunoassay. The availability of monoclonal antibodies has significantly improved the specificity of immunoassays. Urinary excretion of hGH does not directly reflect changes in plasma levels or secretory rates of the hormone and so the measurement of urinary growth hormone is of little value. This will cause further problems for those concerned with the prescription of doping agents. However, selective radioactive carbon labelling of synthetic hGH could facilitate the detection of administered hormone in the presence of the endogenous hormone. (Vol. 18 No. 1, March 1986, p. 5)

Erythropoietin

Erythropoietin, which stimulates the bone marrow to produce more red blood cells (RBCs), has been dramatically successful in reversing anemia in patients with kidney disease. It may also be used to treat other types of anemia. But this exciting medical breakthrough may have a dark side. Some physicians fear that athletes—especially endurance athletes who have experimented with blood doping in the past—will see erythropoietin as an easier, more effective way to blood dope...

Theoretically, erythropoietin could enhance athletic performance the same way blood doping does—by improving oxygen transport and therefore endurance. With erythropoietin, however, a series of injections would replace the lengthy and somewhat complicated blood doping procedure. Blood doping generally involves removing 2 pt of blood 8 to 12 weeks before competition. The RBCs are separated
from the plasma and preserved by a freezing technique. The athlete continues to train at full aerobic capacity while the body replenishes the blood supply. About one to four days before competition, the frozen RBCs are thawed, reconstituted with saline, and infused over one to two hours.

How Does Erythropoietin Work?

Erythropoietin, a hormone, is normally produced by the kidneys. The kidney has a mechanism that can sense low circulating levels of hemoglobin (anemia) or low oxygen tension,’ ‘When the blood count is low, the kidney manufactures erythropoietin and releases it into the blood. Erythropoietin stimulates the bone marrow to manufacture RBCs and then is metabolized by the liver.

... Whether erythropoietin is made by human kidneys or in the laboratory, its effect is the same - it causes the percentage of RBCs (hematocrit) in the blood to increase, so more oxygen is carried to exercising muscles. An athlete who uses erythropoietin may report feeling more energetic after taking the drug. However, if the hematocrit keeps going up, the blood will get thicker. At a certain point - and many hematologists think that point is a hematocrit of 54% or greater - an element of danger comes in. The thickened blood begins to move to vital organs more slowly. It also clots more quickly, thus increasing the risk of heart attack and stroke. (Vol. 17 No. 6 August 1988, pp. 15-16)

13.42 Clearly the problem facing the analyst is not the ability to measure growth hormone or erythropoietin but the ability to distinguish normal body levels (endogenous) from levels due to the administration of synthetic hormones (exogenous).

Steroid Profiling

13.63 Anabolic steroids are synthetic compounds similar to the male sex hormone, testosterone. Hormones, in general, are produced in relatively small amounts and levels do not normally fluctuate greatly. The production of hormones are usually
switched on and off by a master hormone, eg, the production of testosterone by the testes is controlled by a master hormone from the pituitary gland called luteinizing hormone. If the testes are producing too little testosterone then the pituitary gland produces more master hormone which in turn signals the testes to produce more testosterone. When the body has produced enough testosterone it signals the pituitary gland to stop producing the master hormone.

13.64 When anabolic steroids are introduced into the body the pituitary gland is tricked into thinking that extra testosterone is in the body (this is because anabolic steroids are so similar to testosterone). The pituitary gland therefore does not switch on the production of normal testosterone from the testes. Hence the incidence of testicular atrophy or what athletes call 'raisin nuts'.

13.65 When anabolic steroids are introduced into the body, therefore, little natural testosterone or other natural testosterone-like hormones are produced. These testosterone-like hormones include androsterone and etiocholanolone. When anabolic steroid administration ceases, it usually takes some time before normal production of the natural testosterone-like hormones recommences. The technique of steroid profiling measures levels of the ratio of the natural hormones androsterone and etiocholanolone. These levels and the ratio appears to be diminished with anabolic steroid administration.

13.66 Most significantly early research shows that the diminished levels and ratios are still evident for a period of time after anabolic steroids become undetectable in urine samples. Figure 13.2 shows the obvious change in the levels and ratios of an individual: a. training without anabolic steroids; and, b. training with anabolic steroids.

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SCHEMATIC REPRESENTATION
OF STEROID PROFILES

(IN NOTE REDUCED LEVELS AND CHANGES WITH TRAINING ON STEROIDS)

ANDROSTERONE

ETIOCHOLANGLONE

Concentration of compound

Training without anabolic steroids

Training with anabolic steroids

Compound detected, in a moving stream of solution
13.67 During the Moscow conference, Mrne Ljungqvist, Chairman of the Medical Commission, International Amateur Athletic Federation (IAAF), and Dr Tamae Ajan, General Secretary, International Weightlifting Federation, advised the delegates of the progress with independent drug testing controlled by international federations.

13.68 In the International Olympic Charter the draft principles and guidelines for out of competition testing notes:

Where International Federations decide to carry out out-of-competition anti-doping measures this should be done in close co-operation with the Central National Organization (Evidence, p. 402).

The Committee notes that drug testing officers from ASADA will act as agents for the IAAF flying squad to undertake testing in the Oceania and South East Asia area on a full cost recovery basis.

13.69 The Committee is aware that the IAAF undertook testing at an international marathon event in Queensland in 1989 and that an Australian female athlete was found to be positive for ephedrine.

13.70 Dr Ajan told the Moscow Conference that the IWF:

is very much in favour of the application of the so called steroid profile (see below) ... our doctors are not involved in the doping controls anymore ... (Evidence, pp. 4181-2)

Clearly the IWF supports the independent testing recommended in the Interim Report of this Committee.

11.71 The Committee understands that the International Rowing Federation is also developing a flying squad for international drug testing.
13.72 The need to develop uniform policies within Australia and throughout the world was noted in this Committee’s Interim Report (see Recommendation Four (iii)).

13.73 The Committee notes that since the tabling of the Interim Report the General Association of International Sports Federations, at a meeting in Budapest on 21 October 1989, adopted principles for the Harmonization of Anti-Doping Regulations.

Visiting Athletes

13.74 The Draft International Olympic Charter Against Doping in Sport notes:

Bilateral or multi-lateral sports agreements should contain references to out-of-competition anti-doping measures which would allow athletes from one country training on the territory of another country to be tested by the authorised doping control team of the latter country at the request of their home country. Appropriate action would be taken on positive results as if the control had taken place in their own territory. (Evidence, p. 4021)

13.75 Mr Halosky supports this point:

... international testing arrangements on a bilateral basis should also include the acceptance that if a representative or a nationalista of one country was training in another he would be subject to the regime of that foreign country or to competition testing. Secondly the same country could request to have its own athletes - quite out of the normal order of that host country - tested in that foreign country, if that athlete came up with their own consideration of their random selection. (Evidence, pp. 4138-9)

13.76 The AODA has advised this Committee that arrangements are in place to ensure that Australian athletes who are selected for testing under the auspices of ASADA can be tested when
training or competing overseas. The Committee notes that prior to the Commonwealth Games in Auckland ASDA carried out drug testing on Canadian track and field athletes in Canberra and on cyclists in Launceston on behalf of the Sports Medicine Council of Canada.

The Commonwealth Games

13.77 The Australian Government Analytical Laboratory in Sydney carried out the drug testing on those athletes tested at the Commonwealth Games in Auckland.

13.78 Mr Coates had advised the Committee 12 months earlier:

It is anticipated that provided the Sydney laboratory successfully conducts the testing program for the Auckland Games in February 1990 under the supervision of Professor Donike of the Cologne laboratory, IOC accreditation could follow almost immediately. (Interim Report, p.112)

13.79 This Committee highly commends the progress made by the Australian Government Analytical Laboratory following the loss of accreditation by the Royal Brisbane Hospital in 1987 (see Interim Report, p. 110).

13.80 The drug testing officers from ASDA also provided their valuable expertise to the Commonwealth Games Association during the drug testing procedures carried out in Auckland. Australia has played a major role in the drug testing requirements for the Auckland Games.

Research Agreements

13.81 The need to undertake analytical, medical and other research into sports drugs is noted by this Committee. The professional expertise, for example, that is required to gain and maintain Olympic laboratory accreditation must be of an extremely high standard. Australia can not afford to operate in a professional vacuum. This could lead to a similar situation that
resulted in the loss of accreditation by the Royal Brisbane Hospital in 1987.

13.82 The Committee notes that the Chief Executive of ASDA is initiating research agreements with experts from the Medical Commission of the IOC. The elements of this may include analytical scholarships to enable an exchange of laboratory experts between Australia and the USA. Mutual research projects that may be undertaken include caffeine metabolism, the health risks of substance abuse, steroid profiling and new techniques for the analysis of endogenous hormones, such as growth hormone and erythropoietin.

AUSTRALIA’S INVOLVEMENT

Introduction

13.83 Representatives of a number of Australian bodies have played a role in and contributed to the international initiatives already described. This involvement has included discussions with representatives of other nations and formal talks preparatory to the conclusion of international agreements.

The Dubin Inquiry

13.84 The Federal inquiry into doping in amateur sport in Canada opened on 11 January 1989. The inquiry was established after Canadian sprinter Ben Johnson tested positive to the anabolic steroid stanozolol, during the Olympic Games in Seoul.

13.85 The Canadian newspaper, The Globe and Mail, records on 12 January that Justice Charles Dubin, Commissioner of the Inquiry, and Ontario’s Associate Chief Justice would ‘exchange information with similar probes as far away as Australia’.

13.86 The Chairman of this Inquiry has met with Justice Dubin and his counsel on two occasions.
Discussions

13.87 The forum of the Moscow Conference allowed the Australian delegation to initiate international agreements reflecting the elements of the International Olympic Anti-Doping Charter and the concerns of this Committee.

13.88 The Chairman of this Senate Committee and the Chief Executive of the Australian Sports Drug Agency had discussions with:

Dr A Ljungqvist
Chairman Medical Commission IAAF
Dr M Marshall
Medical Commission NH Olympic and
Commonwealth Games Association
Mr H Tronvik
Confederation of Norwegian Sports
Mr L Makeisky
Assistant Deputy Minister Fitness and
Amateur Sport Canada
Mr O Sorensen
Sport Canada
Ms A Hoffman
Sport Canada
Dr A Pipe
Chairman Advisory Committee on Drug Abuse in Sport, Sport Medicine Council of Canada
Sir A Cold
Chairman Drug Abuse Committee European Sport Conference
Mr N Kingan
Head, Recreation Division, Department of Environment, UK
Mr D Casey
Sports Council, UK
Ms M Verroken
Sports Council, UK
Prof V Semenov
Director Moscow Dope Control Laboratory
Mrs V Ostapenko
Anti-Doping Control Service, Goskom sport
Mr 2 (Ed) Moses
Chairman Substance Abuse Committee, United States Olympic Committee
Mr B Pittenger
Executive Director, United States Olympic Committee
Dr R Iale
Physician, United States Olympic Committee
Dr R Dugal
Head Montreal Laboratory
Dr D Cowan
Head London Laboratory
Dr N Ofebro
Head Oslo Laboratory
Dr A Beckett
Medical Commission, IOC
Mr G Walker
Head Sports Section, Council of Europe

International Agreements

13.89 The importance of Australia forging links with other nations, especially through formal agreements, cannot be overestimated.
The agreement between Australia, Great Britain, Canada and New Zealand, which was initiated at the Moscow Conference and drafted during the Canberra meetings, was discussed by the relevant Sports Ministers in Auckland. It is worth noting that these nations won just over 81 per cent of medals at the Commonwealth Games this year.

This agreement, in combination with that reached in Rome, links Australia to a significant international network. The Mercury of 17 January 1990 noted:

Australia is set to join a world-wide network of interlocking drug testing treaties that will make it almost impossible for drug-taking athletes to sidestep the rigorous testing program being conducted at home by training abroad.

CONCLUSION

On the first day that evidence was presented to this Committee Mr Haynes advised that:

without a strong and firm national program it is quite impossible to have a strong and firm international program. (Evidence, p.183)

Clearly the key recommendation of this Committee to establish a new independent Australian Sports Drug Commission has provided a focus for anti-doping initiatives in this country. In addition, it has placed Australia in a position to provide a lead internationally. As Mr Makosky, the Canadian Assistant Deputy Minister for Fitness and Amateur Sport, stated in his evidence:

Everything that I have seen - where you are beginning to put in place the new doping commission and the approach, and all the agreements that you are striking with the Olympic Association and the Commonwealth Federation, and so on - is really very significant and provides an excellent model for the rest of the world to see. (Evidence, p. 4164)
Recommendation Forty-Seven

13.94 That continued efforts be made to develop and expand international agreements and co-operation to develop uniform procedures and protocols for sports drug testing and to restrict the availability and use of those drugs used purely to enhance performance.

Recommendation Forty-Eight

13.95 That ASA include in its Annual Report a list of the names of all athletes tested over the period to which the Report relates and that for each athlete results of each test be given in full. This is essential for public scrutiny and to allow Australia's testing program to be verified by countries with which Australia has negotiated bilateral testing agreements.

Recommendation Forty-Nine

13.96 That the ACAL budget appropriation include sufficient funds for the public interest aspects of sports drug testing.

Recommendation Fifty

13.97 That ACAL liaise with other laboratories in the forefront of new detection techniques, e.g. Los Angeles (with regard to HIV) and Europe (with regard to erythropoietin and blood doping).

Recommendation Fifty-One

13.98 That ACAL begin testing for HIV and EPO to assist in the provision of an international data base so that doping rules for these hormones can be formulated as soon as practicable.
Recommendation Fifty-Two

13.99 That AGAL liaise with Professor Donike (Cologne Laboratory) to prepare a report to the Commonwealth Games Federation of steroid profiles, by sport and country, of competitors in the Auckland Commonwealth Games and that this report be made available to ASDA and the Implementation Unit to assist with future negotiations.

Recommendation Fifty-Three

13.100 That ASDA and AGAL continue research, data collection and analysis directed towards the use of steroid profiles as a means of unambiguously detecting prior drug use.

John Black
Chairman

May 1990