The Pennsylvania State Athletic Commission

The current commission was re-established in 1989 (Act 29-1989) and further defined in 1992 with the passage of Act 32-1002. The commission is an agency within the Department of State. It is comprised of five voting members – three commissioners, the chairman of the Medical Advisory Board and the Secretary of the Commonwealth.

Current (voting) members include:

Rudy Battle, Chairman
Joel Frank, Commissioner
Richard Steigerwald, Commissioner
Pedro A. Cortés, Secretary of the Commonwealth
Dr. Alan Brackup, Chairman Medical Advisory Board - Member

Current members of the Medical Advisory Board are:

Dr. Alan Brackup, Chairman
Dr. Paul Steinberg
Dr. Frank Costa
Dr. Burt Blackstone
Dr. Lawrence Biskin

Greg Sirb is the Executive Director; he oversees all day-to-day activities. Mike Arnese was appointed as Deputy Director in June of 2016.

The Commission also employs 35 inspectors throughout the Commonwealth to monitor activities when an event is taking place.

Since 1990, the commission has not received any money from the state’s General Fund. The Commission receives the majority of its funding from a 5 percent gross receipts tax on professional and amateur boxing, MMA, kickboxing and wrestling events. Other sources of revenue include registration of athletic agents, license fees and a 3 percent tax on pay-per-view events.

Visit the Department of State’s website:

www.dos.pa.gov

State Athletic Commission

• Boxing and MMA Results
• Calendar of Events
• Licensing Requirements
• Fee Schedules and More
The Professional Boxers “Bill of Rights”

1. You have the right to be treated in a professional manner and to be fully informed about all aspects of your sport.

2. You have the right to have all terms of any contract with a promoter or manager in writing.

3. You have the right to have all contracts read and explained to you, either by the local commission representative or anyone of your choosing (including an attorney).

4. Before any bout you have a right to know your opponent’s name, their record, the weight class of the bout, the number of rounds of the bout, and the amount of your purse, including any travel or training expenses. To check on any boxer’s record, including your own, contact (Fight Fax) at 856-396-0533.

5. You have a right to review, obtain and keep copies of any of your contracts.

6. You have a right to directly receive any and all payments from a bout as set forth in your bout agreement.

7. You have the right to receive a written, post bout accounting from either the promoter or your manager or both, which shows how the total amount of your purse was distributed. If you have any deductions taken from your purse you have the right to ask for a written accounting of what these deductions were, and why they were deducted from your purse.

8. You have a right to have a doctor at ringside at all times as well as emergency medical personnel and/or an ambulance present at the location at all times.

9. You have a right to have medical insurance to cover any injuries resulting from a bout and to know the name of the insurance company and the amount of coverage that is being provided.

10. You have the right to hire individuals of your choice to serve as your managers, trainers or seconds. You are not required to hire any individual in order to obtain a bout.

11. You have a right to know why your ranking with any sanctioning body has changed and the reasons for this change. This may be done by writing to the organization and requesting why your ranking has been changed. The organization must respond to you, in writing, within (7) days.

12. You have a right to appeal any and all suspensions and to be informed on exactly why you were suspended and the length of your suspension.

13. You have a right to contact your local commission or the Association of Boxing Commissions to report any violations, ask any questions or seek any advice. The PA Commission can be reached at 717-787-5720.

Boxers should get a copy of and read the two federal boxing bills that detail many of your rights and responsibilities as a professional boxer. These two bills are:

The Professional Boxing Safety Act of 1996 and
the Muhammad Ali Act of 2000

**Although the Federal law does NOT pertain to MMA fighters – it is strongly suggested that MMA fighters understand and review these Rights.**
Energy Drinks

The latest fad in athletics is the consumption of energy drinks by athletes prior to practice or competitions. Drinks typically consist of a combination of caffeine, sugar, vitamin B, and amino acids. Companies who manufacture these drinks make consumers believe their products have positive effects on performance. The companies lead consumers to believe that these energy drinks produce the following positive effects:

Increased physical endurance, improved reaction speed and concentration, heightened mental alertness, feeling of well-being and stimulation of increased metabolism and stamina. The various companies advise athletes to only consume one drink 30 minutes prior to competition. Sadly, athletes do not often follow this advice and then experience the never mentioned negative effects.

Below are some examples of the adverse effects of the various ingredients in energy drinks:

- **Caffeine** is a diuretic and causes dehydration when consumed, and is not encouraged prior to athletic competition. Caffeine may also cause athletes to experience jitters, heart palpitations, nervousness, and insomnia.

- **Sugars or simple carbohydrates** often provide a quick short lasting boost in blood sugar known as a sugar high. Although athletes may experience a brief boost in “energy” it is typically followed by feelings of sluggishness and diminished energy during the later stages of an athletic event. It also has been shown that high concentration of sugars may limit the body’s ability to absorb fluids which would hamper the re-hydration process.

- Although many of these products boast that they include amino acids and B Vitamins, there is no proven direct correlation between consumption of **amino acids or vitamin B** to improved athletic performances.

- No one truly understands how these energy drinks can interact with prescription or nonprescription medicines.

Energy drinks should not be a substitute for proper training, proper hydration, well-balanced meals and plenty of sleep. Athletes should be cautious about what they put into their bodies in an attempt to perform at their highest competitive level. It is always advised to consult with your family physician prior to consuming any new product especially if you are taking any medication.

It should also be noted that **Ephedra**, a common energy enhancer and diet aid, was banned by the U.S. Food and Drug Administration (FDA) in April 2004. Ephedra can induce headaches, insomnia, tremors, nerve damage, rapid or irregular heartbeat, high blood pressure, hypertension, strokes, heart attacks, seizures, brain damage, and death. The FDA received more than 1,500 reports of adverse reactions from Ephedra prior to September 2001. **SAC also classifies Ephedra as an illegal drug.**
Suspensions Due to Head Trauma

After a boxing/MMA event, it is very routine for this Commission to hand out medical suspensions to those fighters who have suffered losses by either TKO/KO or have facial cuts or medical injuries or who were involved in “tuff” fights. These suspensions go directly to the boxer via U.S. mail.

This is to alert you that while this Fighter is on suspension, this means that they should not be in the gym sparring. This suspension is just that…a suspension from all boxing/grappling!! You as the fighter’s manager/trainer/promoter should take the necessary steps to ensure that this fighter is not sparring and is not involved in activity at the gym that could worsen the fighter’s condition. For example, if a fighter is given a 30-day suspension, this means NO sparring and no contact for 30 days.

If you as the fighter’s manager/trainer/promoter want to know what type of suspension your fighter may have received after a bout – just call the office 717-787-5720. Or go to the Commission’s website (www.dos.pa.gov) click on Athletics and then go to Results – here you can see the Results of all matches and suspensions that were given.

REMEMBER – these suspensions are medical suspensions and are to be taken seriously by the fighter and the manager/trainer/promoter – we at the Commission are relying on you to ensure that your fighter is following these medical suspensions while they are in the gyms.

POST THIS IN YOUR GYMS

Head Trauma/Injuries/Knockouts
To all Fighters / Managers / Trainers / Promoters:

After the bouts tonight if your BOXER/MMA fighter suffered a TKO or KO or just may have taken too many head shots, they may be suffering from a concussion or other head injuries.

The fighter must seek immediate medical attention if they experience any of the following:
• Nausea
• Vision Difficulties
• Vomiting
• Severe Headaches
• Sleepiness or dizziness
• Tremors, Fits or Convulsions
• Confusion or Loss of Memory
• Trouble with balance or coordination
• Weakness of arms, legs or one side of the body

If you feel that the FIGHTER HAS A HEAD INJURY note the following:
• Do not let the Fighter walk/travel home unescorted – someone should be with the Fighter for at least the next (24) hours. If the above symptoms persist or get worse, you must seek immediate medical attention.
• The Fighter may take Acetaminophen (Tylenol) every four hours as needed to relieve pain.
• Do not take other medications, especially (Aspirin) because aspirin may cause bleeding into or around the brain in head injury patients.
• Follow a clear liquid diet for 12 to 24 hours (take such things as Gatorade, Kool-Aid, Apple Juice – avoid carbonated sodas). Do not drink any alcoholic beverages for at least 24 hours.
• Rest in bed for at least 24 hours.

You should be aware the symptoms of potentially serious head injuries might not start right away. They may take several days to develop. Remember if any of the symptoms do occur you must seek medical attention immediately.

HEAD INJURIES ARE LIFE THREATENING.
**Danger Signs**

IMMEDIATELY NOTIFY THE RINGSIDE PHYSICIAN OR THE COMMISSION OF ANY INJURY SUSTAINED DURING YOUR FIGHT. ANY FIGHT RELATED INJURY WILL BE COVERED BY THE INSURANCE UP TO $15,000.

YOU SHOULD SEEK IMMEDIATE MEDICAL ATTENTION AT THE CLOSEST HOSPITAL.

**EMERGENCY ROOM IF YOU EXPERIENCE ANY OF THE FOLLOWING:**

<table>
<thead>
<tr>
<th>Nausea or Vomiting</th>
<th>Dizzy, Woozy or Sleepy</th>
<th>Black Spots, Flashing Lights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confusion</td>
<td>Double or Blurred Vision</td>
<td>or Areas Of Blackness</td>
</tr>
<tr>
<td>Severe Headaches</td>
<td>Pain in the Eye</td>
<td>Unable To Walk Straight</td>
</tr>
</tbody>
</table>

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**Síntomas de Peligro**

NOTIFIQUE AL MÉDICO DEL RING SOBRE CUALQUIER HERIDA SUFRIDA DURANTE LA PELEA. DEBE BUSCAR TRATAMIENTO MÉDICO URGENTE EN LA SALA DE EMERGENCIA EN EL HOSPITAL MÁS CERCANO SI SIENTE ALGÚN DE LOS SIGUIENTES SÍNTOMAS:

<table>
<thead>
<tr>
<th>Nausea o Vomito</th>
<th>Sombras en la Visión</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confusión</td>
<td>Incapacidad de Caminar Erguido</td>
</tr>
<tr>
<td>Mareo o Sueño</td>
<td>Visión Doublé</td>
</tr>
<tr>
<td>Dolor en el Ojo</td>
<td>Dolor de Cabeza Agudo</td>
</tr>
</tbody>
</table>
Rules for Cornerman, Seconds and Trainers
(Boxing & MMA)

1. Only three (3) men are allowed in each corner for a PRO boxing event and only two (2) for an Amateur MMA event. Four (4) are allowed for TITLE Bouts.

2. All seconds must wear hygienic gloves.

3. All taping of a fighter’s hand must be approved and inspected by the Commission.

4. Items allowed in the corner:
   - Vaseline
   - Adrenalin 1:1000
   - Thrombin
   - Avitene
   - Water
   - Ice Packs
   - Gauze Pads
   - Towels/Sponges
   - Q-Tips
   - Pressure Plates
   - Scissors
   - Commission-approved sports drinks

   Items not allowed in the corner:
   - New Skin
   - Collodion
   - Ammonia Capsules
   - Silver Nitrate
   - Drugs of any kind
   - Monsel’s Solution

All Things in a Corner Must Be Labeled and Are Subject to Inspection by the Commission.

5. Keep your corners clean and dry.

6. Excessive coaching will not be tolerated.

7. Professional behavior is expected at all times.
### 2016 Year End Statistics

<table>
<thead>
<tr>
<th>Year</th>
<th>Total # of Licenses</th>
<th>Type of License</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>711</td>
<td>Athletic Agent = 114</td>
</tr>
<tr>
<td>1991</td>
<td>775</td>
<td>Announcer = 16</td>
</tr>
<tr>
<td>1992</td>
<td>981</td>
<td>Boxer = 421</td>
</tr>
<tr>
<td>1993</td>
<td>1,180</td>
<td>Am MMA = 354</td>
</tr>
<tr>
<td>1994</td>
<td>930</td>
<td>Pro MMA = 215</td>
</tr>
<tr>
<td>1995</td>
<td>942</td>
<td>Doctor = 26</td>
</tr>
<tr>
<td>1996</td>
<td>1,055</td>
<td>Judge = 63</td>
</tr>
<tr>
<td>1997</td>
<td>1,143</td>
<td>K-Box/M-Tai = 38</td>
</tr>
<tr>
<td>1998</td>
<td>1,055</td>
<td>Manager = 32</td>
</tr>
<tr>
<td>1999</td>
<td>910</td>
<td>Matchmaker = 25</td>
</tr>
<tr>
<td>2000</td>
<td>1,238</td>
<td>Promoter = 81*</td>
</tr>
<tr>
<td>2001</td>
<td>1,268</td>
<td>Referee = 21</td>
</tr>
<tr>
<td>2002</td>
<td>1,302</td>
<td>Second = 1,156</td>
</tr>
<tr>
<td>2003</td>
<td>1,352</td>
<td>Timekeeper = 11</td>
</tr>
<tr>
<td>2004</td>
<td>1,215</td>
<td>Trainer = 20</td>
</tr>
<tr>
<td>2005</td>
<td>1,080</td>
<td>----------------</td>
</tr>
<tr>
<td>2006</td>
<td>1,002</td>
<td>2593</td>
</tr>
<tr>
<td>2007</td>
<td>1,171</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>1,192</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>2,082</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>2,370</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>2,363</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>2,407</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>2,338</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>2,465</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>2,101</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>2,593</td>
<td></td>
</tr>
</tbody>
</table>

*Promoters = (MMA=18, Wrest=37, Box=20, Am=6)
# of EVENTS - by TYPE (2016)

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Boxing</th>
<th>Wrestling</th>
<th>A-Boxing</th>
<th>K-box/M-Tai</th>
<th>MMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011=</td>
<td>500</td>
<td>26</td>
<td>362</td>
<td>52</td>
<td>8</td>
<td>52</td>
</tr>
<tr>
<td>2012=</td>
<td>502</td>
<td>30</td>
<td>350</td>
<td>53</td>
<td>10</td>
<td>59</td>
</tr>
<tr>
<td>2013=</td>
<td>462</td>
<td>34</td>
<td>308</td>
<td>57</td>
<td>16</td>
<td>47</td>
</tr>
<tr>
<td>2014=</td>
<td>496</td>
<td>44</td>
<td>350</td>
<td>51</td>
<td>14</td>
<td>37</td>
</tr>
<tr>
<td>2015=</td>
<td>493</td>
<td>29</td>
<td>369</td>
<td>60</td>
<td>8</td>
<td>27</td>
</tr>
<tr>
<td>2016=</td>
<td>505</td>
<td>41</td>
<td>364</td>
<td>55</td>
<td>9</td>
<td>36</td>
</tr>
</tbody>
</table>

PROFESSIONAL BOXING RESULTS - 2016 (41-Events)

*** The total number of individual bouts in the year 2016 = 292.

Of these 292 bouts the number ending by:

- KO = 32 or 11%
- TKO = 85 or 29%
- UNA = 132 or 44%
- SPLIT = 9 or 3%
- MAJOR = 11 or 4%
- DRAW = 23 or 9%
- DISQ = 0 or 0%
- NO Contest = 0 or 0%

* Of the bouts ending by way of KO or TKO = (117)

Ended in Rounds

- 1 or 2 = 38 or 32%
- 3 or 4 = 27 or 23%
- 5 or 6 = 21 or 19%

After Round 6 = 31 or 26%

292
PRO/AM MMA RESULTS - 2016 (36-Events)

*** The total number of individual bouts in the year 2016 = 351.

Of these 351 bouts the number ending by:

<table>
<thead>
<tr>
<th>Method</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>KO/TKO</td>
<td>77</td>
<td>22%</td>
</tr>
<tr>
<td>UNA Decision</td>
<td>141</td>
<td>40%</td>
</tr>
<tr>
<td>SPLIT Decision</td>
<td>25</td>
<td>7%</td>
</tr>
<tr>
<td>Majority Decision</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Tap-out/Subm</td>
<td>100</td>
<td>28%</td>
</tr>
<tr>
<td>DISQ</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>No Contest</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Draw</td>
<td>4</td>
<td>1%</td>
</tr>
</tbody>
</table>

-----------------
351

- Of these (100) bouts ending by Tap-out/Submission - they ended by:

<table>
<thead>
<tr>
<th>Method</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guillotine Choke</td>
<td>20</td>
<td>20%</td>
</tr>
<tr>
<td>Rear Naked Choke</td>
<td>44</td>
<td>44%</td>
</tr>
<tr>
<td>Arm Bar</td>
<td>8</td>
<td>8%</td>
</tr>
<tr>
<td>Others</td>
<td>28</td>
<td>28%</td>
</tr>
</tbody>
</table>
The Pennsylvania State Athletic Commission


FROM:  Gregory P. Sirb, Executive Director
Pennsylvania State Athletic Commission

In January of 1994, the Pennsylvania State Athletic Commission began random Drug Testing of professional boxers as required by Act 1992-32. The purpose of these random tests is to ensure that those athletes, licensed under the jurisdiction of the Athletic Commission, are competing in a safe manner as well as protecting the integrity of professional boxing in the Commonwealth.

The Commission is currently testing for the following drugs: Amphetamines (two types), Barbiturates (six types), Benzodiazepines, Cocaine, Marijuana, Methadone, Methaqualone, Opiates (two types), Steroids, Growth Hormones (HGH), Phencyclidine, Propoxyphene, and Ephedra.

The Athletic Commission compiled the following statistics:

<table>
<thead>
<tr>
<th>YEAR</th>
<th># TESTED</th>
<th># POSITIVE</th>
<th>% POSITIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>185</td>
<td>8</td>
<td>4%</td>
</tr>
<tr>
<td>2011</td>
<td>150</td>
<td>12</td>
<td>8%</td>
</tr>
<tr>
<td>2012</td>
<td>155</td>
<td>13</td>
<td>8%</td>
</tr>
<tr>
<td>2013</td>
<td>158</td>
<td>7</td>
<td>4%</td>
</tr>
<tr>
<td>2014</td>
<td>181</td>
<td>10</td>
<td>5%</td>
</tr>
<tr>
<td>2015</td>
<td>144</td>
<td>9</td>
<td>6%</td>
</tr>
<tr>
<td>2016</td>
<td>171</td>
<td>7</td>
<td>4%</td>
</tr>
</tbody>
</table>

* Of these (7) positive results: 5 = Marijuana, 1 = Benzodiazepines, 1 = Opiates

* Since 1994 SAC has tested 2,665 fighters, with 181 Positive results, which equals (6.7%).

* 2010 was the first full year of testing MMA fighters.
Please be advised that any fighter testing “positive” for any drug taken in Pennsylvania and that fighter was the winner of the bout - the decision shall be changed to a “disqualification loss” for that fighter. The losing fighter of the bout shall see the results changed to a No Decision.

Also, be advised that the PA Commission will now be allowing day-before weigh-ins at the Commission's discretion. On those occasions where the Commission approves a day-before weigh-in the main event(s) of that show (main events will be determined by the Commission) will be subject to the mandatory next day weigh-in with the 10-lb weight gain rule in effect. This will not be enforced for weights of 175 and above.

Any fighter (MMA or Boxing) that misses weight may be subject to a monetary fine as well as the following:

First offense: 90-day suspension
Second offense: 180-day suspension
Third offense: 1-year suspension

Federal ID Cards

All boxers and MMA fighters must have a Federal Identification Card. This ID card must be presented to the Athletic Commission before each event.

To obtain a federal ID card, each fighter must provide the State Athletic Commission:

• A copy of his or her driver’s license
• Birth certificate
• Social Security card
• Recent photo

This card must be presented every time a fighter competes anywhere in the United States.

REMEMBER: NO ID CARD = NO FIGHT
Determining your Weight Class

The following procedures are based on the measurement of your body composition so that if you want to lose weight, it will be fat weight - not water and not muscle. Your body is composed of lean tissue, which includes muscle, bone, water and fat tissue. The best way to lose weight and not impair performance is to lose fat tissue and maintain lean tissue. The American College of Sports Medicine and The American Academy of Pediatrics have set 5% as the minimum percent body fat to ensure good health. Going below the minimum of 5% body fat can lead to serious health consequences and impaired performance.

You as a Boxer should first have your body fat assessed/measured using either skinfold measures, hydrostatic weighing or dual energy X-ray absorptiometry (DEXA). A skinfold is the layer of fat over your muscles. Skinfold measurements will be taken from 3 to 7 sites on your body, and the measures will be entered into an equation that will predict your percent body fat.

Hydrostatic weighing is a technique where you are weighed under water. The principle behind this measurement is that different materials (like fat and muscle) will displace water differently. An estimate of your percent body fat can be obtained using underwater weighing.

DEXA is typically used to measure bone mineral density; however, it can also measure percent body fat. Underwater weighing and DEXA are more accurate methods of determining your percent body fat than skinfold measures.

For Example:

Through testing, a boxer is determined to have 13% body fat. If he weighs 168 lbs, then the amount of fat he has is 22 lbs (168 * 13% = 21.84 lbs).

Percent fat = 13%

Fat weight = 168*13% = 21.84 lbs

Lean tissue weight = 168 lbs - 22 lbs = 146 lbs (This is with NO body fat. But remember you should always have at least 5% body fat.)

Minimum weight would be: 153 pounds = Jr. Middleweight = 146 lbs * 5% = 7.3 lbs.

thus 146 + 7.3 = 153.3 lbs.

* This Boxer’s minimum weight should be no lower than 154 lbs. – Jr. Middleweight division. This allows the Boxer to carry the minimum body fat of 5%.

From the above example: As a Boxer, if you start training camp at 168 lbs but you are boxing at 154 you should not lose more than 2-3 lbs per week. That means you need to start losing this weight at least (6 to 8) weeks in advance of the bout. Boxers who try to lose too much body weight in a shorter period of time will not perform up to their best, and this can harm your body. You should start to lose fat weight well before a boxing event. A weight loss of no more than 2 pounds per week will ensure that you will not lose body water or lean body mass (muscle).
The Dangers of Cutting Weight And Dehydrating

Unhealthy and dangerous weight loss practices continue to be a serious problem in combat sports. One recent study found that 39% of MMA fighters were entering competitions in a dehydrated state. Heat illness and death in athletes have already happened in sports of wrestling and MMA. It’s been shown that excessive weight loss, rapid weight loss, and repeated cycling of weight gain/loss causes decreased performance, hormonal imbalance, decreased nutrition and increased injury risk. Other life-threatening problems associated with improper weight loss and dehydration include:

- **Decreased Muscle Strength and Endurance**: Decreased blood flow to muscles makes them work less well.
- **Decreased Heart and Cardiovascular Function**: The heart works harder and less efficiently.
- **Reduced Energy Utilization, Nutrient Exchange and Acidosis**: With decreased blood flow to tissues, nutrients do not get delivered, and the body’s waste products do not get removed as well. A buildup of acid occurs which changes cells’ functions in the body.
- **Heat Illness**: This takes on four (4) forms: heat cramps, heat syncope (loss of consciousness), heat exhaustion, and heat stroke (which may be fatal). Dehydration results in decreased blood flow to skin and muscles. This is followed by decreased ability to regulate body temperature. The ability to sweat becomes impaired, and core body temperature can rise. This increases the threat of all of these to poorly hydrated athletes doing strenuous workouts.
- **Decreased Kidney Function**: Dehydration leads to decreased kidney blood flow and decreased kidney function. This contributes to the problems listed in the points here, in addition to decreased urine output, concentrated urine, and leakage of protein into the urine. (It is not known if these changes can result in permanent kidney damage.)
- **Electrolyte Problems**: Decreased kidney function results in imbalances of electrolytes such as unhealthy increases in potassium and sodium.
- **Mood Swings and Mental Changes**: All of the above contribute to increased mood swings, poor concentration and focus, disorientation and other mental changes.
- **Eye Trouble**: Dehydration can cause blurred vision and dry eyes.
- **Increased Risk of Brain Injury**: There are likely increased risks of brain bleeding and concussion.
STATE ATHLETIC COMMISSION

RUDY N. BATTLE
CHAIRMAN

DR. ALAN BRACKUP
CHAIRMAN, MEDICAL ADVISORY BOARD

PEDRO A. CORTEŞ
SECRETARY OF THE COMMONWEALTH, MEMBER

JOEL FRANK
COMMISSIONER

RICK STEIGERWALD
COMMISSIONER

GREG SIRB
EXECUTIVE DIRECTOR

MIKE ARNESE
DEPUTY DIRECTOR

MEDICAL ADVISORY BOARD

ALAN BRACKUP, M.D., CHAIRMAN

PAUL STEINBERG, M.D.

FRANK COSTA, M.D.

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