PREFACE
by Coach John Mattos, Colorado State University

Tired of picking up inhalers after practice? Unsure of whether to push your asthmatics hard or back off in today's training session? Wondering if your swimmers who take a "puff" once in a while are gaining some sort of advantage over your other hard working swimmers? Are the kids who use inhalers being alienated by their peers?

Read this extremely informative guide about a disease that shapes the lives of many of the athletes on your team. You'll no longer "wonder" about asthma. You'll have an understanding of this debilitating condition and a plan of action that may save your swimmer's life.

INTRODUCTION

In 2002, the Journal of Asthma reported that 9% of high school students are asthmatic, based on pulmonary function test (PFT) results. The same report indicated that the incidence was as high as 39% after exercise. As swim coaches, we are all too familiar with the prevalence of asthma in our sport.

On April 24, 2004, USA Swimming's Network Task Force on Asthma met at the Olympic Training Center in Colorado Springs. This day was devoted to addressing questions brought forward by developmental coaches and the personal coaches of those who attended the Olympic Preparation Camp. Much of the Task Force's interaction with some of the coaches at this camp involved discussing concerns about bad air in pools, lack of fresh air in pools, state health department rules and relations and the challenge of leading the political battle.

The Task Force members dedicated their meeting time in Colorado Springs as well as several additional weeks following the meeting to applying their knowledge and tapping into additional expert resources. Every individual question was addressed. This booklet is an organized compilation of those responses.

In addition to its Q & A format, this booklet includes a comprehensive resource list and educational handouts. You are encouraged to generate photocopies to facilitate education and awareness within your club.

We hope that you will find this guide valuable to your program.

DEFINITIONS

Before getting too far into the reading, take a few moments to familiarize yourself with the terminology associated with asthma and swimming. Make a note of how many of these terms you already know and which ones you are hearing for the first time.

Allowed - Substances that are permitted to be used and do not require any documentation prior to competition but must be listed on a drug testing form at the time of testing.

Asthma – A disease of the airways and the lungs, characterized by variable airflow, airway hyper-responsiveness and airway inflammation; Spasm in the airways shrinks the size of the airway and decreases air exchange; May be brought on by exercise, allergens, pollutants, airway irritants and upper respiratory infections.

ATUE Form – Abbreviated Therapeutic Use Exemption Form; The form required to be on file with USA Swimming prior to testing if an athlete uses an asthma inhaler.

Daily Controller Medication – Medication (inhaler or pill form) that is taken on a predetermined schedule and not generally affected by the presence of or lack of symptoms.

EIA – Exercise Induced Asthma; Reversible airway obstruction that occurs during or after exercise; Symptoms typically include cough, wheezing, dyspnea (labored breathing) and chest tightness.

Inflammation – Irritation that results in swelling and redness of the airway; A localized protective response elicited by injury or destruction of tissues.

Inflammatory – The presence of irritation indicating that a reaction is occurring in the airway; Pertaining to or characterized by inflammation.

Inhaled steroids – Formulation of steroids specifically for use in the lungs that allow the medication to be delivered directly into the lung in a powder or aerosol form.

Long-Acting – Medication that has an extended period of effectiveness, typically measured as “many hours” to days.

Over the Counter Inhaler – Medication that is in an aerosol form that does not require a prescription.

PFT – Pulmonary Function Test; Testing of the airways and their response in a laboratory or controlled environment; Results include air flow statistics.

Pre-Exercise Inhaler – Medication that is used to avoid an asthma attack, designed to be taken prior to exercise; Usually a Beta-2 Agonist.

Prohibited – Medication that is not allowed to be used at any time. Examples of prohibited substances are anabolic agents, diuretics and peptide hormones. These substances are tested for during out-of-competition and in-competition testing. If a medication/substance is prohibited during competition it cannot be in the athlete's system during competition. Examples of substances in this category are stimulants and narcotics.

Rescue Inhaler – Medication that is used to stop an acute asthmatic attack.

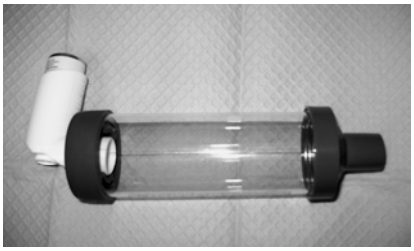
Requires an Abbreviated TUE Form - Medications that are allowed to be used only if the appropriate documentation is filed PRIOR to testing (see definition of Abbreviated Therapeutic Use Exemption (ATUE) form).

Short-Acting – Medication that has a limited period of effectiveness, typically measured in minutes to hours.

Silent Chronic Asthma – Asthma that has gone undetected; often dismissed as temporary post-exercise coughing and/or wheezing; often considered "normal" by the athlete when in fact it can result in permanent damage if left untreated.

Spasm – Constriction of involuntary smooth muscles in the airway, resulting in a decrease in the size of the airway passage.

Spacer – A chamber that is attached to an inhaler to deliver asthma medication effectively; Collects the spray of medicine in a chamber and allows the athlete to breath the spray, rather than allow the spray to collect on the tongue and back or throat (see photo).



Take at your Own Risk - Substances that are not prohibited but the risk does exist for them to contain prohibited substances that are not clearly listed on the ingredients label. Dietary supplements fall in this category. The risk also exists for a supplement to contain anabolic steroid precursors (which turn into anabolic agents in the body).

USADA - The United States Anti-Doping Agency; Responsible for drug testing for all sports (Olympic, Paralympic and Pan American) in the United States; Completely independent of the United States Olympic Committee.

Vocal Chord Dysfunction (VCD) – A condition with symptoms similar to asthma but which are a result of an abnormal closing of the vocal cords (VCD) rather than inflammation of their airways (asthma); Symptoms include shortness of breath, chronic cough, chronic throat clearing, hoarseness, wheezing, and even chest tightness.

WADA - The World Anti-Doping Agency; Established to provide harmonization of doping control rules across all sports and countries; Each International Federation, National Olympic Committee, National Anti-Doping Agency and government has been asked to adopt the World Anti-Doping Agency Code.

Signs & Symptoms of Asthma
(including Silent Chronic Asthma)

- Chest tightness or pain
- Wheezing
- Cough
- Excessive sputum production with exercise
- Shortness of breath (out of proportion to exercise intensity, aka Dyspnea)
- Fatigue
- Poorer performance than training would predict
- Stomachache
- Sore throat with exercise
- Decreased exercise endurance (feeling out of shape)
- Inability to keep up with peers of similar skill/ability

INCIDENCE AND INHALERS ON DECK

"There are three reasons healthcare providers are sending asthmatic kids to your pool. Oxygen and blood disperse to the body better when they're in a laying down position during exercise. Humidity helps asthmatics. Exercise enhances cardiovascular and lung performance."

Is the number of cases of asthma in swimmers greatly increasing?
The actual number of cases of asthma *in general* is increasing. The reasons are still up for debate, but we *are* certain that strategies for identifying and diagnosing asthma are better than they were ten years ago. We are also aware of more triggering factors these days, including poor diet, elevated body mass index and dehydration. Systemic disease is more common (relates to eczema). The environment also plays a major role. In the case of swimmers, pool air quality has been blamed, but the air quality *in general* has changed (ex. more pollution). In some cases, more modern and energy-efficient building designs make natatoriums more tightly sealed than in previous years. If professionally designed, effective air handling is not installed, the result will be poor air quality. In addition, it seems that more physicians are referring asthmatic children to swimming.

Should inhalers be allowed on the pool deck for use during practice?
Yes. Rescue inhalers are prescribed for a reason, and banning them from the pool deck puts you in a position of medical liability. Rescue inhalers should be readily available and their location individualized. Preventative inhalers, on the other hand, can be left in the locker room, but only if the workout is less than four hours long and the main set is less than one hour. Otherwise, an appropriate place for both rescue and preventative inhalers is in the swimmer's equipment bag (at the end of the lane) or at another designated location on deck, such as on a specific table or pinned to a bulletin board. Regardless of location, every inhaler should be properly labeled with the swimmer's name and be kept in a plastic bag (ex. Ziploc) for protection. All of this should be part of your swimmer's action plan.

Are doctors providing inhalers for "anyone who asks for them?" What are the medical ethics of prescribing inhalers to non-asthmatics?
Contrary to popular belief, inhalers are not performance-enhancing. Inhaler medication simply allows a swimmer plagued with an impaired ability to move air to and through the lungs up to an equal level of play. All medications have side-effects, and inhaled medications are no different. Rapid heart beat, irregular heart beat, nausea and dizziness are among the most common potential side-effects of most rescue inhalers. In this sense, prescribing an inhaler for a non-asthmatic would be unethical simply due to the health risk.

Despite the medication's lack of performance-enhancing effect, it is classed as "requires an abbreviated TUE form" by WADA, which means that a swimmer who uses an inhaler

and is subject to drug testing is required to provide documentation of its medical necessity. This documentation includes the results of a pulmonary function test (PFT) or other laboratory test (ex. bronchodialator, methacholine challenge) that supports the diagnosis as well as an abbreviated therapeutic use exemption (ATUE) form. There are no substitutes for this documentation. A history or description of signs and symptoms is not enough, nor is a diagnosis of acute sinusitis. In fact, a PFT or other laboratory test should be the primary diagnosis tool for asthma in swimmers. This prevents over-diagnosing based on symptoms only and prevents swimmer from becoming psychologically dependent on the inhaler only to have a subsequent PFT fail to prove its medical necessity.

For a list of prohibited medications as of August 2004, please see the section on Drug Testing Rules and Paperwork later in this document. All asthmatic swimmers (and their parents) should take responsibility for educating their healthcare provider on the drug control rules governing the sport of swimming.

PROPER USE OF MEDICATION

Coach to Coach…

"They don't look sick. And yet, it could be severe enough to where they can't get out to get that inhaler which they need at that point in time."

"When you have a swimmer using an inhaler more than you think he should, ask two things: (1) does he really need it? And (2) is his asthma under control?"

When using an inhaler, how much is the right amount?

The dose associated with inhaler use really depends on the case and the healthcare practitioner's directions. Some asthmatics use a daily controller medication in addition to their pre-exercise inhaler. Two "puffs" of an inhaler is pretty standard, but a healthcare provider's directions are always specific to the patient's condition.

Is it possible for a swimmer to "over-use" an inhaler, either in volume or frequency? Is there a way for me to tell if my swimmer is "over-using" his inhaler? What are the overuse signs/symptoms?

These are very good questions. Generally speaking, if a swimmer is using an inhaler more than ***two to four times*** per workout, this should be a red flag that the swimmer's asthma is not under control and/or the athlete is not using the medication as directed. If you suspect this, be concerned. Ask questions, such as: Did your doctor give you specific directions on how and when to use your inhaler? What are those directions? You might even consider talking to the parents about your concern. Avoid making medical recommendations to prevent a liability situation. If you are lucky enough to meet the healthcare provider who oversees your asthmatic swimmer, encourage him/her to talk to age groupers about responsibility.

When is the best time to use an inhaler before practice/races? (how much time in advance?)

Swimmers should take their short-acting medications (meds) approximately 30-40 minutes prior to workout or race (not 30 minutes prior to warm-up or entering the ready room). Long-acting meds should be taken one hour prior. The reason for this is that most pre-exercise meds take at least 30 minutes to have an effect and the benefits last for several hours. For example, the peak benefits of short-acting meds like albuterol, chromolyn and generics last for about two hours. The benefits of Foradil last for about 12 hours. The benefits of long-acting meds such as Serevent last 12 to 18 hours. The swimmer should know if he/she is using short- or long-acting meds, and which one is which.

Tips for Swimmers…
Keeping Your Asthma Under Control

- Find the right healthcare provider.
- Schedule regular visits.
- Take responsibility for daily management.
- Stay hydrated during all practices, regardless of the time of day.
- Maintain an adequate daily salt intake.
- Work together with your provider and coach.
- Keep you healthcare provider educated.
- Know your baseline spirometry measurement (from PFT results).
- Ask questions.*See Tips for Swimmers
- Be confident.

Tips for Swimmers…
from Olympian Tom Dolan

Talking to Your Healthcare Provider About Your Asthma

As an asthmatic swimmer you HAVE to be aggressive and take charge of your asthma. Do not simply rely on your doctor and expect everything to be perfect. Be proactive in your life with asthma and learn what you can do outside of the doctor's office to enable yourself to swim fast and train hard.

- You should realize that the more open you are when communicating with your doctor, the better he/she will be able to treat your individual case.

- Ask you doctor to teach you and guide you as to why you have trouble breathing on certain days versus others. For example, "Why do I have trouble in the spring and not the winter?" The more you can learn about what triggers your asthma the better you can deal with it.

- Make sure you discuss with your doctor what times are worse and what times are better for your asthma. Give details as to what the weather is like when you have trouble breathing. Again, the more information that you can provide, the better the doctor will be able to treat you.

- Ask your doctor about the medications that you are prescribed. Do not just take the medications without any knowledge as to how or why they are helping you. Ask why you are taking them at specific times and doses.

- Make sure your doctor is aware of the drug restrictions on asthma medications. Regardless of your age, you and your doctor should learn what is legal and what requires an abbreviated TUE form. This is a good habit to get into. Your asthma is your responsibility.

Timing Your Meds on Race-Day

This Example is For Illustrative Purposes Only
Consult with your healthcare provider to develop a formula tailored to your individual needs.

6:00am	Daily Controller Med 1st dose (ex. Serevent, inhaled steroid)
7:00am	Warm-up
8:30am	Pre-Exercise Inhaler 1st dose (ex. Albuterol)
9:00am	RACE - Prelims
9:10am	Warm down
10:10am	Warm-up
10:15am	Pre-Exercise Inhaler 2nd dose
10:45am	RACE – Prelims
11:00am	Warm down
4:30pm	Warm-up
5:00pm	Pre-Exercise Inhaler 3rd dose
6:00pm	RACE – Finals
6:10pm	Warm down
6:40pm	Warm-up
6:45pm	Pre-Exercise Inhaler 4th dose
7:15pm	RACE – Finals
7:30pm	Warm down
8:00pm	Daily Controller Med 2nd dose

Notes:

- Shoot for two hours between pre-exercise med doses. Minimum of 90 minutes, but preferably two hours.
- Note the change in the timing for the 3rd dose of the pre-exercise med. It would have fit at 5:30 pm, but had to be moved back to 5:00 pm to meet the minimum time between doses. Since the med will last for 2+ hours, this will not create a problem for racing.
- If the swimmer has been directed to take a daily controller med three times per day, then use as directed.
- Coaches: Have a PLAN. Take that plan and the meet schedule to the healthcare practitioner for review and/or education. If you can't go, encourage the swimmer to see that this is accomplished.

Timing Your Meds on Training Days

This Example is For Illustrative Purposes Only
Consult with your healthcare provider to develop a formula tailored to your individual needs.

Daily Controller Meds as directed.

4:30am	Pre-Exercise Inhaler (or 30min prior to start of main set)
5:00am	Workout
6:00am	Rescue Inhaler (if needed)
3:30pm	Pre-Exercise Inhaler (or 30min prior to start of main set)
4:00pm	Workout
5:00pm	Rescue Inhaler (if needed)

Note: If the rescue inhaler is being used regularly, encourage the swimmer to see the healthcare provider for "tweaking" the pre-exercise and daily controller meds for better control.

What is the difference between a prescription inhaler and an over-the-counter inhaler?
Over the counter (OTC) inhalers do not require a prescription and are usually available off the shelf in any pharmacy section. Examples are Primatine and Bronchomist. *Asthmatic swimmers should avoid OTC inhalers. The risk of toxicity far outweighs any benefit, the benefits are unproven, they encourage an undocumented need, and they may contain stimulants that are prohibited in our sport.* If your swimmer *is* using an OTC inhaler to treat self-diagnosed asthma, refer him/her to a healthcare provider for proper diagnosis and directions. Consider requesting the follow-up documents after the appointment and encourage the swimmer and the healthcare provider to check with USADA to ensure that the OTC inhaler is actually allowed.

When someone uses a prescription inhaler, is it good to have an over-the-counter inhaler if the prescribed inhaler is misplaced or not available? Do the over the counter inhalers work short term?
If your swimmer is already using a prescription inhaler, he/she should NOT be using ANY OTC inhaler. As mentioned above, the benefits of OTC inhalers have not been proven to treat asthma.

Proper Use of an Inhaler

Remember that the proper use of an inhaler usually includes the use of a spacer. The type of spacer shown in this photo is most efficient for effective delivery of medication to the lungs.

There are smaller, more compact spacers available. After using the type of spacer shown here, the med canister fits into the spacer for easy carrying. These are typically substituted for the regular spacer only when the athlete must have the inhaler on their person during training (ex. cycling).

*New dry powder inhalers do not require spacers.

DOPING CONTROL RULES AND PAPERWORK

A swimmer who uses an inhaler and is subject to drug testing is required to provide documentation of its medical necessity. The swimmer must take responsibility for educating his or her healthcare provider on the doping control rules governing the sport of swimming.

Swimmer to Swimmer…

"Make sure your doctor is aware of the drug restrictions on asthma medications. Regardless of your age, you and your doctor should learn what is legal and what is restricted. This is a good habit to get into. Your asthma is your responsibility."

Which asthma medications are "allowed"?

As of November 2004, the following asthma medications are allowed:

Accolate, Aminophylline, Atrovent, Cromolyn Sodium, Intal, Ipratropium, Nedocromil Sodium, Singulair, Theophylline, Tilade, Zyflo

Special Note #1: Beta-2 Agonists

Note that many Beta-2 Agonists are classified as "requires an abbreviated TUE form" which means they are allowed to be used but documentation must be on file PRIOR to testing. As of November 2004, the Beta-2 Agonists listed below are permitted in the aerosol or inhalant forms **only to prevent and/or treat asthma and exercise-induced asthma:**

Formoterol (*Foradil*)**,** Salbutamol**,** Albuterol (*Proventil, Ventolin*)**,** Salbutamol*/ Ipratropium (*Combivent*)**,** Salmeterol (*Serevent*, Also *Advair* which contains a corticosteroid)**,** Terbutaline (*Brethaire*) [Generic Name (*Pharmaceutical Preparation Examples*)]

***Salbutamol is prohibited both in and out of competition above 1000mg/ml**

For each of the Beta-2 Agonists listed above an ATUE form must be completed and written notification by a respiratory or team physician is required.

Special Note #2: Corticosteroids

In general, the systemic use of corticosteroids is prohibited [i.e., when administered orally, rectally (internal) or by intravenous or intramuscular injection]. However, the following corticosteroids are allowed but require an **ATUE and written notification:**

1. Topical use (in the ear, the eye, anal (external), nasal, etc).
2. Inhalation therapy (i.e., for treatment of asthma)
3. Intra-articular and local injections of corticosteroids

Some corticosteroids require an ATUE prior to competition. As of November 2004, these include the **nasal sprays** *Beclovent, Beconase, Beconase AQ, Flonase, Nasacort, Nasacort AQ, Nasalide, Nasarel, Nasonex, Rhinocort, Rhinocort Aqua, Vancenase, Vancenase AQ, Vanceril* and the **inhalation (Metered Dose) meds** *Advair, Aerobid, Flovent, Q-Var, Pulmicort.*

Special Note #3: Levalbuterol (*Xopenex*)
Recent guidance from the World Anti-Doping Agency has provided assurance that Levalbuterol (*Xopenex*) (by nebulizer) can be used as a medication for the treatment of asthma when an ATUE form is filed with the relevant anti-doping authority. The use of Levalbuterol is subject to the same concentration rules that apply to the use of Albuterol (Salbutamol) by Metered Dose Inhaler.

Athletes should get in the habit of contacting the USADA Drug Reference Line at 1-800-233-0393 to check the status of all medications **PRIOR** to taking them. No complete list of substances is published, and the only way to be sure the athlete is not taking something that is prohibited is to check the status via the reference line or the new Drug Reference Online at www.usanti-doping.org/dro .

Which asthma medications are completely prohibited (banned)?
Some Beta-2 Agonists are prohibited even in the inhaled form and "all Beta-2 Agonists are prohibited when administered orally or by injection" (Guide to Prohibited Substances 2004). Documentation of use on an ATUE form does not grant the athlete permission to use the medication. The following Beta-2 Agonists are prohibited both in and out of competition:

> Bitolterol (*Tomalate*), Clenbuterol, Isoproterenol sulfate (*Meihaler-ISO*, Isuprel), Orciprenaline (Metaproterenol, Metaprel, Prometa), Pirbuterol (*Maxair*), Reproterol (*Bronchodil*), Rimiterol (*Pulmadil*)

Who needs to report their inhalers?
Athletes who are competing in major competitions such as Spring and Summer Nationals, the US Open, the Grand Prix meets, Junior Championships, and the World Cup must have documentation on file. If your athlete is traveling to a meet internationally (even a small meet or with your club team) documentation must be on file prior to departure.

It often takes substantial time to get the forms signed by the physician. If you have an athlete who is close to making the necessary cuts to compete in the above meets you should educate his/her parents now. This gives the parents time to get the required documentation in order.

What is the reporting process/declaration of use for inhalers?
An Abbreviated Therapeutic Use Exemption (ATUE) form must be on file prior to testing. Forms can be found in this issue and on the USA Swimming website in the Drug Control section. The form must be signed by the physician and include a diagnosis. Forms should be faxed to USA Swimming at 719-866-4257. USA Swimming will then submit the forms to FINA and USADA, while keeping a copy in the athlete's file.

Forms expire twelve months from the date they are signed by the physician. Athletes must re-submit forms at that time in order to be in compliance with doping control rules. Athletes should re-submit their forms immediately if they are prescribed an additional medication, the dosage changes, or the physician changes.

Should I have all of my asthmatic swimmers report their inhalers?
Athletes who are competing at the above mentioned meets are required to report their inhalers, and athletes on the verge of competing at this level must begin preparing the necessary documentation. If your athlete is not competing at this level submitting documentation is not necessary at this time. However, as the coach you should be aware of which athletes use inhalers and begin educating the parents about requirements. Even if an athlete is not at a meet where drug testing occurs he/she is still required to abide by doping control rules. Athletes who are not asthmatic are violating doping control rules by using an inhaler that he/she does not need for medical purposes. And remember that these medications bring with them potentially dangerous side-effects.

All facts in this section come from the 2004 USADA Guide to Prohibited Substances.

POOL CHEMICALS AND AIR QUALITY

Coach to Coach…

"Oftentimes in order to comply with an energy code, you violate an OSHA code. You have pools that OSHA wouldn't approve a custodian to work in, but the kids are having a swim meet in there. We've become so sensitive about energy, we've become insensitive to oxygen."

"It's interesting…we walk into a facility we've never been in before and we're asked if we need directions to the pool. The answer is always no."

What pool chemicals affect breathing?

Pool chemicals chlorine and bromine can affect breathing. In the air, chloramines and carbon dioxide (CO_2) also affect breathing. Chloramines result when there is an imbalance between free available chlorine and combined available chlorine. Chloramines are the main trigger for asthma sufferers in pools and may exacerbate the condition in others. Trichloramine is a well-established lung irritant.

How does air quality in an indoor pool affect asthma? Can poor air quality actually *cause* asthma?

It is important to realize that poor air quality does not *cause* asthma, but that the chemicals in that air are often *triggers* of asthmatic conditions. Pool environments that contain high chloramine levels are more likely to trigger an attack than pool environments with low chloramine levels.

What pool conditions are poor for swimmers with asthma who are in training or competition?

In the past, some aquatics organizations have recommended a minimum chlorine level of around 3.0 ppm. Some use the analogy that when it comes to the effect on the lungs, this is the equivalent of smoking two or three cigarettes! Pools that use trichlor and dichlor chemical systems tend to generate trigger chemicals with more dramatic effects. This may also be the case in pools where the water chemistry (free chlorine, available (total) chlorine, pH) is out of balance. A large disparity between free and available chlorine typically means high chloramines. In addition, air exchange systems that introduce new air to the facility only every hour or hour and a half may allow trigger chemicals to linger. Lastly, a positive pressure environment in which fans push air out of the sides of the building can simply blow poor quality air across the pool. The air may not reach the exchange system.

What can I do to improve the air quality in my pool and reduce the impact of pool chemicals on breathing?

First and foremost, be proactive and be educated. Be an ambassador for good air in your pool. This is your workplace. This is the environment in which you spend the majority of your day.

There are many options for remedying air quality issues, depending on your facility's age, size, layout, etc. Follow the guidelines described below, and take advantage of the expertise of USA Swimming's Facilities Staff. They are available for individual consults regarding troubleshooting, course of action and potential associated costs (see insert).

To maintain good air quality in your facility, focus on air circulation and good water. For existing facilities, check the water chemicals three times each day, and more often if there is heavy recreational pool use and/or dictated by governing law. Adjust as needed. A common minimum chlorine level from health departments is 1.0-1.5 ppm. Always follow the specific minimums for your governing department and follow the directions and standards outlined in the test kit or photometer. Use the lowest number that is legal. Local fire departments often have a portable CO_2 measuring system. They may come to your facility for free and/or allow you to borrow the device for measuring purposes. Keep water pH low. A pH of 7.2-7.8 is normal, but may vary by state and water type. Remember that a pH less than 7.0 is acidic. Avoid trichlor and dichlor chemical systems, and be sure that the filtration and circulation system is properly designed and maintained.

For air, keep the air temperature close to the pool temperature and keep chloramines low. Your primary means of improving air circulation is examining your heating, ventilation and air-conditioning (HVAC) system. Know who runs this. The air exchange system should be set so that fresh air is introduced into the facility at a rate of 95% exchange every 20-25 minutes. Many of the older systems have never been set to do this. They are exchanging it every 90 minutes or so. It is almost certain that most air handling systems are undersized or being run limitedly. Unfortunately, many are also powerless against airborne chemicals. In planning a new facility, do not sacrifice good air and sensible engineering for fancy facades and other bells and whistles. Work with designers who know how to properly size and engineer the ducting. Consider new air system technologies, such as UV (ultraviolet). It appears to do the trick well. The light allows the chlorine residuals in a pool to be lowered to health department limits and treats 100% of the flow rate. UV technology has improved air quality and its disinfection works 99.9% as well as "treated water."

Cleaning and proper seasonal maintenance/settings of HVACs are also extremely important. Newer systems, when properly maintained with clean filters and damper readjustments, will facilitate this needed air exchange. If fresh air is not introduced properly, the air above the pool will not have the proper available oxygen and will become similar to the atmosphere on Venus. Be sure to know about your neighboring facilities, as the air they are pumping out may be affecting the quality of the air your facility is pumping in.

You can also open doors, create cross-breezes with fans, distribute swimmers across

lanes, discourage urinating in the pool, and prohibit cleaning crews from cleaning the pool deck during training. Be sure that the fans do not create a positive pressure situation in your pool. As we complicated the systems for energy efficiencies, we made them less effective. Twenty years ago we used to put big fans in the wall, one in and one out. They worked very well, but heating costs were high. ASHRAE (Heating and Air Conditioning Association) is working on a solution, but we won't see any published documents until at least 2005.

When it comes to air, many HVAC system manufacturers will gladly send personnel to assist anyone with a problem, often at no cost. Consider this an option. Call the Facilities staff at USA Swimming for assistance with this type of arrangement. See the resource list at the end of this document for contacts.

Facility Consult Request Information

To request a consult with a member of the USA Swimming Facilities Staff, collect the information listed below. Use the form at the end of this booklet to submit your request, or look for the on-line form in the Swim Clubs/Facilities section of www.usaswimming.org

GENERAL
Name
Club
Address, Phone, Email
Role (Owner/Coach/Facility Mgr/Other)

FACILITY
Date of Last Inspection by Dept of Public Health
Type of Facility (public, private)
Size of Facility (building length and width and ceiling height)
Conditions (indoor, outdoor)
Average Pool Temperature (Main pool, Teaching pool, Hot tub)
Activity Volume (number of bodies through each pool each day)
Do you host meets? (Yes/No)
Water Surface Area (approx length and width of each pool)

WATER
Type of Disinfectants (chlorine, bromine, other)
Type of Filtration System (sand, cartridge, DE, other)
How do you control pH? (muriatic acid, sodium bisulphate, soda ash, other)
How many times do you test the water each day? (1, 2, 3)
What do you test for? (free chlorine, available chlorine, temperature, pH)

AIR
Type of Unit on Roof (electric, gas, other)
Dehumidification System (brand, model)

DESCRIPTION
A brief description of the problem is required for all requests.

How do I balance OSHA and federal codes?
Unfortunately, the answer to this question remains unclear. The biggest problem in managing air quality in pool facilities seems to be knowing which set of codes prevail. If you are the insurer, you follow the strictest rules to protect your liability. Generally speaking, high school, university and municipal pools have the toughest codes because they are publicly funded. Typically only county codes apply to private facilities.

Is there money available for air quality improvements?
The facility maintenance budget should take this into consideration. Many times it is not just a case of adding more or newer equipment but understanding what needs to be accomplished and then getting the people who are in charge of the existing equipment operation to do it on a regular schedule. For resources on funding, see the resource list at the end of this document.

How do I deal with changes (declines) in air quality over the course of a meet?
Once again the water balance and fresh air induction balance can greatly improve your chances. It is a common practice to super-chlorinate overnight on Saturday during a Saturday-Sunday meet. This causes more problems than it could ever solve. Systems can be set and monitored once the people who operate them know what they are trying to accomplish.

Are there (or should there be) air quality standards for meets, similar to water and air temperature standards? How (where) would this be measured (at water surface or in spectator seating section)?
Air quality standards for pool facilities would certainly help, but they do not exist right now. There is currently enormous variability in requirements based on who insures your facility…municipal, government, private, etc. One word of caution: If you raise the alarm be prepared for the pool to be closed. It sounds cynical, but it happens every day. High school pools close and some even permanently shut down when it is determined that the mechanical systems are obsolete, undersized and/or in disrepair. Sometimes the repair would cost as little as $45,000. In 2002, according to Surveillance Data from Swimming Pool Inspections by the CDC (Centers for Disease Control), “8.3% of inspections resulted in immediate closure of the pool pending corrections of serious violation items (e.g., lack of disinfectant).”

ASTHMA ATTACKS – Prevention and Management

What to do in the event of an asthma attack:

General Guidelines

1. **Keep calm.**
2. Get the swimmer out of the water.
3. Administer the rescue inhaler (use the spacer!).
4. Call 911 if unsure.
5. Move the swimmer to a quiet location.
6. Monitor the swimmer.
7. Note any improvements.

Should I individualize workouts for an asthmatic? If so, how do I do this?
No. It's okay to tailor the warm-up, but don't individualize the workout. Not only is it not practical (you do not have the time), but the swimmer doesn't want special treatment either. The goal is to manage the asthma by managing the INTENSITY of the set. In fact, you can allow the swimmer to manage this intensity. He/she still does the same set, but perhaps a little less intensely on days when triggers are prevalent. The best thing you can to do is OBSERVE, be aware, and know your athlete. Keep it simple. Eliminate the fear factor.

What should I do if a swimmer has an asthma attack? Should we have an Action Plan? Should the lifeguards be involved?
First of all, do your homework. Talk to the parents of asthmatic swimmers in your group and find out what they do when it happens. In the event of an attack, know the general set of guidelines to follow. Keep calm, get the swimmer out of the water, and administer the rescue inhaler (use the spacer!). When in doubt, call 911. Remove the swimmer from the "chaos," monitor him/her, and note improvements. ** If your swimmer needs the rescue inhaler frequently, make sure he/she meets with the healthcare provider and gets a written action plan for dealing with these attacks. Become familiar with it.

What if my swimmer has an attack but doesn't have her medication with her?
Don't let this happen. Ever. Let swimmers and parents know that the team rule is that asthmatics are responsible for having meds on hand at every practice. ***NO MEDS…NO SWIM.*** Consider including this announcement with registration materials. Run a reminder note in the team newsletter or on the team website. Also consider a policy that requires a minimum of a verbal release from the swimmer's legal guardian prior to returning to practice following an emergency episode.

Can I spot an asthma attack before it comes on? What should I do?
The answer to this question is simple. No. You can not reliably spot an attack coming on. If you are using peak flows for your elite swimmers, the numbers can give you an idea of the risk of an attack that day, but the reality is that you cannot spot an attack before it happens. The "O" mouth and heaving-type breaths are good signs that one is in progress, but at that point there is no stopping it, and you should be prepared to manage the situation (see "What to do in the event of an asthma attack, General Guidelines).

How serious should coaches and officials take an asthma attack at a competition?
Very seriously. Be sure to establish (and be prepared to follow) an action plan. Use the general guidelines outlined previously. Make sure your meet staff is aware of the potential. Be aware of how many meet participants are asthmatic, and encourage each of them to have a plan.

Tips for Swimmers…
Preventing an Asthma Attack

- Know your in-training asthma triggers (allergies, acid reflux, cold weather)
- Know your peak flow personal best. Be responsible and talk things over with your coach.
- Use preventative meds and spacers properly.
- Stay hydrated at all times.
- Use the warm-up to build-in to the main set. Talk to your coach about *you* being responsible for the intensity of the warm-up.
- Talk to your healthcare provider and ask for a written action plan to deal with all possible situations.

Using Peak Flow Values

It won't be practical for everyone, but in cases where you have the ability to provide personal attention to each swimmer, consider using peak flow values to evaluate the swimmer's condition prior to workout.

Step 1 – Perform a basic flow test upon arrival on deck
Step 2 – Warm-up based on the results of the 1st test
Step 3 – Perform a second test after the warm-up
Step 4 – Adjust the workout if necessary based on the results of the 2nd test

Example: Elite swimmer and severe asthmatic with personal best Peak Flow of 450

Test 1 result of 250-300:
Warm-up – Mostly swimming and pulling; less kicking

Test 2 result of 200-250:
Workout carefully planned; perhaps cut short
(*If test 2 result was <200, definitely no practice!)

It may take some trial and error to determine the cut-off values for your swimmer, but this monitoring procedure can be valuable in preventing serious attacks and maintaining the quality of workouts.

It may be helpful to arrange for the swimmer's healthcare provider to visit the pool one day to discuss and demonstrate the use of peak flows specific to that athlete.

ALTERNATIVES

Can anything be done in training to improve breathing/lung function?
Generally speaking, swim training can affect the static lung volumes (FVC, FEV1, MMEF, PEF, etc). It is doubtful that training the inspiratory muscles using resistive breathing devices helps improve performance among elite athletes. A couple of good studies from Colorado State University have shown that a low-sodium diet can reduce the severity of asthma/EIA, but it is unlikely that a low-sodium diet can enhance static lung capacity in the healthy, non-asthmatic individual.

What about placing ionizers in the home?
Many young asthmatics are exposed to allergic triggering factors that aggravate their asthma…pollens, dust mites, animal danders, molds, etc. Air filters in the home may be helpful in reducing his/her exposure to these allergic triggering factors and ultimately lead to better overall control of the asthma. An asthmatic should ask the healthcare provider what his/her triggers are and if a household filter will help the situation. If a filter is selected, the best options are the HEPA type filters or the Sharper Image Ionic Breeze.

Is it possible that my swimmer could have something else wrong?
Yes. One of the most commonly undiagnosed conditions with symptoms similar to asthma is *Vocal Chord Dysfunction (VCD)*, a condition that may be confused with asthma. Symptoms of VCD include shortness of breath, chronic cough, chronic throat clearing, hoarseness, wheezing, and even chest tightness. These symptoms are a result of an abnormal closing of the vocal cords (VCD) rather than inflammation of their airways (asthma).

Possible triggers of VCD are often similar to asthma triggers. Triggers may include upper respiratory infections, air pollution, strong chemical fumes and odors, cigarette smoke, singing, laughing, emotional upset, post-nasal drip, gastroesophageal reflux disease, cold air and exercise. Sometimes the trigger is not known.

Based on the symptoms, many people with VCD may be diagnosed with asthma and treated with asthma medications, but since VCD is not asthma, the symptoms do not improve or only minimally improve with this treatment. When VCD is not identified, and the patient is treated with asthma medication, significant side effects may develop. These are often seen with long-term use of oral steroids, without much benefit. Incorrect diagnosis and treatment may also lead to frequent emergency room visits and hospitalizations. An important factor to be aware of is that some people have a combination of asthma and VCD.

Unfortunately, it can be very difficult to diagnose VCD. Breathing tests may be normal and show no signs of asthma. If a patient has spirometry and his doctor obtains a flow volume loop during the test, the flow-volume loop can be helpful in showing VCD. The

characteristic finding is a cutting off or flattening of the inspiratory (and/or expiratory) part of the loop. This is only helpful if it is done while the athlete is having symptoms. A procedure called a laryngoscopy is the most important test in making the diagnosis of VCD. This procedure is performed by a specialized doctor and should also be done when symptoms are occurring because abnormal vocal cord movements do not occur all the time. It is important to know that people with Vocal Cord Dysfunction **cannot** produce symptoms voluntarily.

Once diagnosed with VCD, an athlete can begin a specific treatment program. If VCD is the only condition, asthma medications may be stopped. If the athlete has a combination of asthma and VCD, asthma medications may be continued, but may often be decreased. Treatment for reflux disease and postnasal drip should be started if these are present.

Speech therapy is a very important part of the treatment for VCD as well. Special exercises increase awareness of abdominal breathing and relax the throat muscles. This enables the athlete to have more control over the throat. Learning to suppress cough and throat clearing can also be extremely helpful. A patient learns to practice these exercises while symptom-free in order to effectively use the exercises during VCD episodes. These exercises help overcome the abnormal vocal cord movements and improve airflow into the lungs.

Counseling is also an important part of VCD treatment and can help an athlete adjust to a new diagnosis and a new treatment program. Counseling can also help the athlete identify and deal positively with stress that may be an underlying factor in VCD. Most people with VCD find counseling to be very beneficial.

(This information was adapted from National Jewish Medical and Research Center's medfacts website http://www.nationaljewish.org/medfacts/vocal.html)

PSYCHOLOGY & EDUCATION

"Athletes train and compete with all kinds of medical issues. It is important to keep the "problem" in perspective."

How can swimmers deal with their asthma?
Acceptance. Avoid defeat. See success. Swimmers get pushed to a point where respiratory issues are identified...big and small. For those who are diagnosed with asthma, the first step is accepting that diagnosis. Not accepting that fact is not reality. The next step is to determine how that condition can be best managed (medically first) and not amplified by what one thinks (psychology). After all, the idea is to minimize the

effects of the condition, rather than make it worse by thinking about it as a debilitating problem. Can it affect one's ultimate performance, yes it can...but the individual can play an active role in keeping the effects to a minimum. No one said life would be fair! Athletes train and compete with all kinds of medical issues. It is important to keep the "problem" in perspective. It is important to have the appropriate medical treatment. And it is important to be compliant with whatever treatment has been prescribed. Often, with asthma, there can be some accompanying "anxiety" which compounds the problem. From the psychology perspective, it can be helpful to learn and employ tools that allow us to maintain control of our thoughts and actions when we feel we are lighting up the asthma responses. Asthma is a physiological/medical issue, but we can compound that with having "emotional asthma". Having asthma is not an "anchor" that slows us down and ultimately limits our success any more than not having asthma is the key to success. We all have varying degrees of strengths and weaknesses. How we utilize those attributes in combination is the key. The bottom line…Maintain clear inventories of what you have and become less focused on what you don't have. "Success" is truly a matter of managing all of your existing resources. If we get into the habit of focusing on what we don't have...well, folks we are in the wrong business. When it comes to asthma, keep it in perspective, and learn to control your "anxiousness" when the asthma light begins to come on.

How can I make sure my swimmers, their parents and their healthcare providers are educated on all of this?

Specialists who are well-versed in exercise asthma are hard to come by. Encourage your swimmer and his/her parents to ask lots of questions, specifically ones outlined in this Guide. Encourage them to learn everything they can about asthma and EIA from resources like the ones listed in the Resources Section. You might even consider providing them with a copy of this Guide.

Consider hosting a night for parents whose children have asthma. Create an open forum to discuss action plans, rules, healthcare provider issues, tips for swimmers, etc. You might even consider a handout for parents at the beginning of the year. This should outline the expectations of the asthmatic swimmer and your rules for having medications on hand at practice. Call it “Does Your Child Have Asthma? What You Need to Know About joining the Swim Team.”

Feel free to make copies of the Quick Quiz at the end of this booklet to keep attendees engaged. And don’t forget to take the quiz yourself!

RESOURCES

Websites:
www.aaaai.org – American Academy of Allergy, Asthma & Immunology
www.nhlbi.nih.gov – National Heart, Lung and Blood Institute
www.acaai.org – American College of Allergy, Asthma & Immunology
www.lungusa.com – American Lung Association
www.asthmaandschools.com – Asthma and Schools
www.aanma.org – Allergy & Asthma Network Mothers of Asthmatics
www.njc.org – National Jewish Center (Denver, CO)
www.usaswimming.org – USA Swimming Doping Control Section
www.usanti-doping.org – US Anti-Doping Association & Guide to Prohibited Substances

National Asthma Education and Prevention Program:
Administered and coordinated by the National Heart, Lung, and Blood Institute, NAEPP was initiated in March 1989 to address the growing problem of asthma in the United States. The NAEPP works with intermediaries including major medical associations, voluntary health organizations, and community programs to educate patients, health professionals, and the public. The ultimate goal of the NAEPP is to enhance the quality of life for patients with asthma and decrease asthma-related morbidity and mortality.
www.nhlbi.nih.gov/about/naepp

Asthma All-Stars Program:
Features three athletes, who overcame their own challenges with asthma by working with their doctors and following an asthma action plan every day, even when they are not having symptoms. The Asthma All-Stars program offers information about how to better manage asthma, help prevent symptoms and reduce the health and lifestyle limitations often caused by the disease. Free packets. 1.877.4ALLSTAR 1.877.425.5782

Reference Book: **Exercise-Induced Asthma: Pathophysiology and Treatment** by Kenneth Rundell, Randall Wilber, Robert Lemanske, Jr.; Copyright 2002; 280 pp; ISBN: 0736033890

Money/Grants, Facilities Courses and State Codes: Your primary resource for this type of information is USA Swimming's Facilities Development Department:

Mick Nelson, Club Facilities Development Director / USA Swimming
(719) 866-4578

John McIlhargy, Aquatic Industry Relations Director / USA Swimming
(845) 429-2407

Sue Nelson, Aquatic Programs Specialist / USA Swimming
(719) 866-4578

ACKNOWLEDGEMENTS

USA Swimming's Network Task Force on Asthma is comprised of medical and science professionals, athletes and coaches who have expertise and a passionate interest in asthma as it pertains to swimming. The goal of this group is to discuss asthma from a clinical perspective and, more importantly, the impact of this condition on our sport. Developing educational materials to better equip our athletes and coaches to handle the issues is a primary focus.

USA Swimming would like to thank the following professionals for their contributions to this program and the Network Task Force on Asthma:

Jim Miller, MD, Chair of the Network Task Force on Asthma
Tom Dolan, Olympic Swimmer and Asthmatic
John Mattos, Coach
Scott Barry, PA-C, RRT
Andrea L Pana, MD, MPH
William Storms, MD
Ed Ryan, ATC
Randy Wilber, PhD
Jimi Flowers

Thanks to Asthma & Allergy Associates and Research Center in Colorado Springs for their assistance in securing photos for this document.

Thanks to USA Swimming Facilities Development Consultants John McIlhargy, Mick Nelson and Sue Nelson, and to Drug Control Coordinator Stacy Michael.

A special thanks goes to all of the athletes, coaches and staff who contributed to and edited this guide. Thank you for your efforts in keeping our swimmers safe and healthy. GO USA!

For additional copies of this Guide, please call USA Swimming at (719) 866-4578. $2/copy.

Quick Quiz

1. What are four signs and symptoms of asthma? (Page 5)

   _____

   _____

   _____

   _____

2. For cases involving drug testing, the swimmer must take responsibility for educating his or her healthcare provider on the drug control rules governing the sport of swimming. (Page 6)

   _____True _____False

3. Asthmatic swimmers should talk to their healthcare provider about their asthma. (Page 9)

   _____True _____False

4. How much time should pass between pre-exercise inhaler uses on race day? (Page 10)

   _____

5. What is an ATUE Form? (Page 3)

   _____

   _____

   _____

6. How long is an ATUE Form valid? (Page 14)

   _____

7. What steps should be taken in the event of an asthma attack at the pool? (Page 20)

   _____
   _____
   _____
   _____
   _____
   _____
   _____

Facility Consult Request Form

Complete and return the following to: Facilities Development Department, USA Swimming, 1 Olympic Plaza, Colorado Springs, CO 80909 Fax: 719.866.4669 Attn: Facilities Staff (*One form per facility.)*

GENERAL

Name _____ Club _____

Address _____ City, State, Zip _____

Phone _____ Email _____

Role (all that apply)

- ☐ Owner
- ☐ Coach
- ☐ Facility Mgr
- ☐ Other _____

FACILITY

Date of Last Inspection by Dept of Public Health _____/_____/_____

Type of Facility (check one)

- ☐ Public
- ☐ Private

Size of Facility

_____building length
_____building width
_____ceiling height

Conditions

- ☐ Indoor
- ☐ Outdoor

Average Pool Temperature

_____Main pool
_____Teaching pool
_____Hot tub
_____Don't know

Activity Volume (number of bodies through your water each day)
_____Main pool
_____Teaching pool
_____Hot tub
_____Don't know

Do you host swim meets?

- ☐ Yes
- ☐ No

Water Surface Area
L_____ x W_____ Main pool
L_____ x W_____ Teaching pool
L_____ x W_____ Hot tub
_____Don't know

WATER
Type of Disinfectants (all that apply)

- ☐ Chlorine
- ☐ Bromine
- ☐ Other _____

Type of Filtration System

- ☐ Sand
- ☐ Cartridge
- ☐ DE
- ☐ Other _____

How do you control pH?

- ☐ Muriatic acid
- ☐ Sodium bisulphate
- ☐ Soda ash
- ☐ CO2
- ☐ Other _____

How many times do you test the water each day?

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ >3

What do you test for? (all that apply)

- ☐ Free chlorine
- ☐ Available chlorine
- ☐ Temperature
- ☐ pH

AIR
Type of Unit on Roof

- ☐ Electric
- ☐ Gas
- ☐ Other _____

Dehumidification System
Brand _____
Model _____

DESCRIPTION
A brief description of the problem is ***required for all requests***.

_____

_____

_____

_____

_____

_____

_____

Abbreviated Therapeutic Use Exemption Form Instructions

Please read the International Standard for Therapeutic Use Exemptions for the requirements of receiving an exemption. Below are only a portion of the requirements for exemption, but failure to follow these instructions will delay the processing of your request(s).

1. The correct Abbreviated Therapeutic Use Exemption (TUE) form must be completed fully.

2. All information written on the form must be clear and legible (to allow faxing).

3. The doctor must use the generic rather than the brand name (For example: Ibuprofen rather than Motrin) because these forms will be faxed to International Federations and WADA. Brand names differ from country to country.

4. **Gymnastics** athletes submitting notification of Beta-2-Agonists (for Asthma) must comply with the FIG Information for Asthmatics Exemption Procedures. These procedures may be obtained by contacting USADA or USA Gymnastics.

5. **Paralympic** athletes should not fill out this form unless they participate in Paralympic Sailing or Paralympic Wheelchair Tennis. All other Paralympic athletes must submit their requests for use of prohibited substances on the International Paralympic Committee's TUE Application and Notification form. This form can be found at www.paralympics.org or www.usantidoping.org.

6. **Rowing** athletes must submit their requests for use of prohibited substances on the Federation Internationale des Societes d'Aviron (FISA) Abbreviated TUE forms. This form may be obtained by contacting USADA or US Rowing.

7. **Track and Field** athletes must submit their requests for use of prohibited substances on the International Association of Athletics Federation (IAAF) International Abbreviated TUE form. This form may be found at www.iaaf.org. Athletes submitting notification of Beta-2 Agonists (for Asthma) must comply with the IAAF Abbreviated TUE exemption procedures. The IAAF Exemption Procedures can be found at www.usantidoping.org and www.iaaf.org.

Your Abbreviated Therapeutic Use Exemption form may be returned or denied for all of the above reasons as well as for:

1. Missing signatures by the doctor, the athlete or the athlete's parent/guardian (if applicable).

2. Missing athlete or doctor contact information including, but not limited to, address, city, state, zip code, phone number.

3. Missing Medical Information including, but not limited to, Diagnosis; Medical examination performed; the Prohibited substances; the dose, route of administration and frequency of the restricted substance.

4. Failure to fully comply with the WADA International Standard and/or your International Federation procedures.

As of May 18, 2004

1

Therapeutic Use Exemptions
Abbreviated Process
(Beta-2 agonists by inhalation, glucocorticosteroids by non-systemic routes)

I apply for approval for the therapeutic use of a prohibited substance on the World Anti-Doping Agency (WADA) List of Prohibited Substances and Prohibited Methods that is subject to the Abbreviated Therapeutic Use Exemption Application Process.

Please complete all sections

1. Athlete Information

Last Name: ..... First Name ..... M.I.

Female ❑ Male ❑ (*check appropriate box*)

Address: .. ..

City: ..... State : ..... Zip code: .....

Date of Birth (month/day/year): .....

Tel. Work: ..... Tel. Home : .....Mobile:.....

E-mail: ..... Fax: .....

Sport:..... Discipline/Position: .....

National Governing Body: .....

If athlete with disability, indicate disability: .....

2. Notifying medical practitioner

Name, qualifications and medical speciality *(see note 1)*: .....

.....

Address: .....

..... E-mail address: .....

Tel. Work: ..... Tel. Home: .....

Mobile: ..... Fax: .....

2

3. Medical information

Diagnosis:.....

Medical examination(s)/test(s) performed: .....

.....

Prohibited substance(s):	Dose	Route of administration	Frequency
Anticipated duration of this medication plan			

Additional information

.....

.....

4. Medical practitioner's and athlete's declaration

I, ... certify the above-mentioned substance/s for the above named athlete has been/are to be administered as the correct treatment for the above named medical condition. I further certify that the use of alternative medications not on the Prohibited List would be unsatisfactory for the treatment of the above named medical condition. Specify reasons:

.....

.....

.....

Signature of Medical Practitioner: ..... Date: .....

3

I, ..., certify that the information under 1. is accurate and that I am requesting approval to use a Substance or Method from the WADA Prohibited List. I authorize the release of personal medical information to the Anti-Doping Organization including its Therapeutic Use Exemption Committee (TUEC) as well as to WADA staff and to the WADA TUEC as well as to other Anti-Doping Organizations under the provisions of the Code. I understand that if I ever wish to revoke the right of the Anti-Doping Organization TUEC or WADA TUEC to obtain my health information on my behalf, I must notify my medical practitioner in writing of that fact. I acknowledge this is effective upon receipt (if complete) by the appropriate Anti-Doping Organization.

For International-level athletes and those who compete internationally, the appropriate Anti-Doping Organization is your International Federation. You may not compete while using any of the allowable medication until a complete form is received by your IF. For National-Level Athletes must submit the Form to USADA. International Athletes may submit the completed Form to USADA and USADA will forward your Form to your IF.

Athlete's signature: ..... **Date:** .....

Parent's/Guardian's signature: ..... **Date:** .....

(If the athlete is a minor or has a disability preventing him/her to sign this form, a parent or guardian shall sign together with or on behalf of the athlete)

Note 1	*Name, qualifications and medical specialty* For example: Dr AB Cook, MD FRACP, Gastro-enterologist.

Please send your form to the U.S. Anti-Doping Agency
2550 Tenderfoot Hill Dr., Suite 200
Colorado Springs, CO 80906
Telephone: 1-866-601-2632 (toll-free) or 1-719-785-2000
Drug Reference Line: 1-800-233-0393 or drugreference@usantidoping.org
Fax: 1-719-785-2001
Email: webmaster@usantidoping.org
Website: www.usantidoping.org