

# My experiences with breathing problems during elite Judo competition

Madelen Rubinstein

I felt so strong during the Judo match in Marrakech 2019, and I was so confident that I would easily win. Then—suddenly—I realized I could hardly breathe. It felt like I was breathing through a straw that was way too tight. I lost the fight of course. This happened when I had struggled hard to qualify for the Olympics in Tokyo 2020, and I had a disastrous feeling I was about to lose everything I had been fighting for.

## MY BACKGROUND AS A JUDO ATHLETE

Ever since I was four years old, martial arts has been my life. I started actively Judo training when I was ten, and by the age of 13 I was already competing at the national level. In that year, I won the national cup in the Under 15 year old category. Since then, I have won several international gold medals both as a junior and senior, and I have also won the World Cup as a senior.

## BREATHING PROBLEMS WERE NOT ASTHMA OR LOW FITNESS LEVEL

In martial arts, you are always exposed to injuries and I have had a lot of experience working my way back to fitness via rehab programs. Respiratory problems on the other hand are not seen as a regular problem in martial arts, and therefore were unknown to both my coach and myself. My breathing problem started when I was 17–18 years old. I visited the doctor and was told that I had asthma and was prescribed asthma medication. I took my asthma medication regularly and before matches, but did not feel that this solved my problem. Both my coach and I therefore concluded that I was probably just in bad shape and that I needed more fitness training. However, despite huge investments in cardiovascular training and a lot of focus on this, I always felt that something was not quite right with my breathing.

Norway, Oslo, Norway

## SEEKING EXPERT EVALUATION

Despite fitness training and asthma medication, my breathing problems kept increasing, and peaked with me losing that match in Marrakesh in 2019; a match that I would otherwise normally win. I knew I had come to a point where we had to deal with this properly. I was therefore referred to Dr. Clemm in Bergen. She is a sports physician, specialist in breathing problems, and leader of the Bergen-ILO research group. I didn't know what ILO was at that stage, but I would soon learn!

## MY BREATHING PROBLEMS WERE CAUSED BY EILO

I travelled to Bergen and underwent several examinations, including running on a treadmill with a flexible laryngoscope stuck through my nose and filming my larynx while performing a maximal cardiopulmonary exercise test. Although this test sounds scary, once the equipment was in place, it was no problem to push for maximum effort. My film showed that the larynx tended to close when I inhaled, and that this steadily increased towards almost

complete closure at peak exercise. I learned from the researchers that my problem was called exercise-induced laryngeal obstruction (EILO). No signs of asthma were detected, although asthma in some people may occur in combination with EILO. I had never heard of EILO before, but have since understood that this condition is relatively unknown. EILO is perhaps better known in athletes engaged in endurance sports and since I was diagnosed, I have become aware of a number of people in the martial arts community who suffer from EILO. I feel it is important that everyone who is engaged in sports should know about EILO. To experience that the larynx closes at maximum effort can certainly be very dramatic, but it is not dangerous. Some people may have less dramatic symptoms, such as a tight feeling in the throat or the upper chest region, chest pain, coughing and stridor. Some people may also experience a sense of muscle stiffness. The good thing is that it is treatable. In some people, surgery may be necessary, but in most, as for me, speech therapy and breathing training will do the trick!

## TREATMENT FOR EILO

Because I was eager to qualify for the Olympics in Tokyo 2020, the Bergen-ILO group created an intensive training program for me. I cancelled all competitions for the next two months and focused fully on gaining control of my breathing. My treatment program included daily training with a technique called Inspiratory Muscle Training (IMT), a method intended to increase the endurance capacity of my larynx (as well as to improve coordination of the muscles involved in breathing). I also received treatment from a speech therapist from the Bergen ILO group, who taught me exercises on how to control my breathing.

After eight weeks of treatment, I was examined for a second time with a flexible laryngoscope. The verdict was that I had gained good control over my larynx during high intensity exertion. It was concluded that I was ready to re-start Judo training and competitions without being distracted from breathing difficulties.

## I NO LONGER HAVE BREATHING PROBLEMS

Reassured by this good news, I started to invest all my energy in order to qualify

## Take home messages

- ⇒ Breathing problems can potentially ruin all type of sports careers, so as an athlete it is important to discuss these issues early with your clinicians so they can help you get to the root of the problem.
- ⇒ Exercise-induced laryngeal obstruction (EILO) is very common and can affect all types of athletes in many different types of sports. Clinicians should consider this as a potential source of symptoms if there is not an improvement
- ⇒ EILO is treatable—seeing a practitioner who is trained in this area will mean that you give yourself the best possible chance of making a full recovery.

for the Tokyo Olympics. However, in Judo you are exposed to all kinds of injuries, and despite the fact that my breathing was under control, I got a bad shoulder injury. A SLAP-lesion forced me to make some new choices. In the summer of 2020, I underwent surgery. Rehabilitation takes time, and I am currently spending my days training to recover from this surgery. Although the Olympics in Tokyo unfortunately took place without me, I am hopeful

that my shoulder rehab proceeds according to plan and am pleased that my breathing problems are under control.

**Contributors** MR wrote the first draft and the final product.

**Funding** The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

**Competing interests** None declared.

**Patient consent for publication** Not applicable.

**Provenance and peer review** Not commissioned; internally peer reviewed.

© Author(s) (or their employer(s)) 2022. No commercial re-use. See rights and permissions. Published by BMJ.



**To cite** Rubinstein M. *Br J Sports Med* Epub ahead of print: [please include Day Month Year]. doi:10.1136/bjsports-2022-105786

Accepted 16 May 2022

*Br J Sports Med* 2022;**0**:1–2.  
doi:10.1136/bjsports-2022-105786