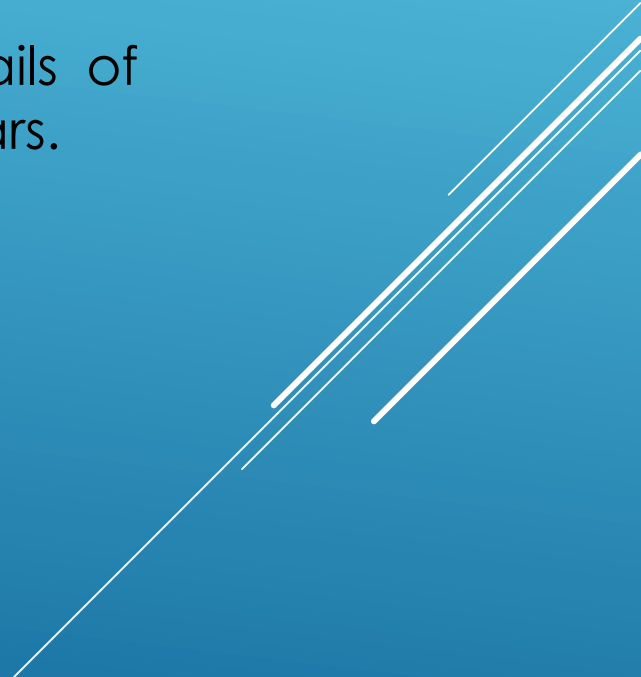


REGULAR MEDICAL EXAMINATIONS OF WRESTLERS THE BEST MODEL

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- ▶ In modern sports, the role of medicine and medical teams is becoming more and more important. Medical professionals in sports are required to help maximize the realization of every elite athlete. This is very important ,of course, but in my opinion, our main task is to preserve the health and life of the athletes, to help prevent disease and trauma, to ensure timely and qualitative treatment, recovery and return to the great sport.
 - ▶ **The focus is put on prevention**
 - ▶ To accomplish this task, we need to be familiar with the details of health status, such as preliminary data and follow-up over the years.
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- Several white lines of varying lengths and thicknesses are positioned in the bottom right corner of the slide, creating a modern, abstract graphic element.

- ▶ Compulsory element are regular medical examinations.
- ▶ They are:
 - ▶ • Initial
 - ▶ • Periodic
 - ▶ • Pre-competitive
 - ▶
 - ▶



- ▶ Initial examinations are carried out at the beginning of a sports career, usually in childhood and adolescence.



- ▶ Structure of the Exam
- ▶ Given the complexity of the evaluation, it should be carried out by a multidisciplinary team that includes, not only the doctor in charge, but also cardiologist, therapist, surgeon, pediatrician (according to the age), traumatologist-orthopedist, neurologist, ENT, dermatologist. If necessary, physicians of other specialties can be involved (according to indications).

- ▶ Main objectives of the exam
- ▶ They are particularly important in answering basic questions such as fitness for high-intensity sports and the workload and risks involved.
- ▶ In the endeavours to optimize the effects of sports participation and training, unwellcome side-effects should be minimized.
- ▶ A health check must detect situations which, even if not showing obvious symptoms, may endanger athletes, subject to highest demands. At the same time, it should enable the identification of predisposition to certain types of injury. In addition to safety, it will be helpful to guide the athletes throughout the activities they should do in order to achieve maximum performance. Essential aspects, such as nutritional recommendations, initial in-depth assessment must be included during the pre-season. This will enable the most appropriate decisions to be made.



- ▶ This initial assessment includes the following parts:
- ▶ **1. Medical and Family History**
- ▶ Personal History questions regarding chest pain, syncope, fatigue, murmurs, blood pressure
- ▶ Family History questions regarding premature death, disability from heart disease and cardiac conditions of family members.

▶ **2. Physical Examination**

- ▶ General Medical Screen
- ▶ Signs and symptoms of, or previous history of diabetes, anemia, neurological diseases, epilepsy
- ▶ Collect Baseline Data ,Blood Tests
- ▶ Vital signs, height, weight, blood pressure, vision testing, pulmonary, neurological, abdominal, skin and genitalia exam also including complete blood and urine tests and body composition, in order to determine the athlete's percentage of fat and muscle.

▶ **3. Medication Use**

- ▶ Medications and supplements utilized should be examined



- ▶ **4. Nutritional Assessment**
- ▶ Questions to determine the nutritional status and plan for disordered eating
- ▶ **5. Heat and Hydration Related Risk Factors**
- ▶ **6. Professional Relationship with Athlete**
- ▶ **7. Education**

- ▶ As part of this examination, special emphasis should be placed on assessing the musculoskeletal and cardiovascular systems:

- ▶ **Musculoskeletal assessment:**

- ▶ this is essential to identify current or past injuries and possible sequelae, to determine the possible risk factors for the athlete and to design preventative programs. In wrestling, special attention should be paid to muscle, tendon, ligament and joint injuries.

- ▶

- ▶ **Cardiovascular assessment:**

- ▶ high-intensity exercise may increase the risk of problems, such as sudden death. Although it only happens in two out of every 100,000 athletes per year, due to its importance and seriousness it tends to have a huge social and media impact. Although sudden death happens most often in football (30% of these deaths), basketball (22%), and baseball (6%), it also happens to swimmers, rowers, gymnasts, figure skaters and other athletes.

► **Medical history:**

Some diseases are often clinically silent and unlikely to be suspected or diagnosed on the basis of spontaneous symptoms.

The majority of conditions at risk of SD during sports are genetically-determined diseases with an autosomal dominant pattern of inheritance, hence the importance of family history in identifying affected athletes.

During the personal history, any of the following should prompt a more thorough evaluation:

- chest pain or discomfort with exertion
- unexplained fainting or near-fainting, especially when related to exertion
- excessive shortness of breath or fatigue associated with exercise
- a previously diagnosed heart murmur
- elevated blood pressure



- ▶ Periodic

Periodic examinations of elite wrestlers have the task to report:

- ▶ diseases in the foregoing period
- ▶ symptoms of previously undetected diseases
- ▶ cardiovascular monitoring
- ▶ injuries and their consequences
- ▶ functional status of the athlete and indicators of his physical working capacity.
- ▶ aerobic and anaerobic exercise regime
- ▶ oxygen consumption
- ▶ lactate





I would like to share the model for medical
examinations adopted by the Bulgarian Ministry of sport
and the Bulgarian Wrestling Federation.

Medical examinations of persons who perform training and competition activities in a sports club - a member of a licensed sports federation.

- Compulsory initial and periodic;
- pre-competitive.

Volume of medical activities and research depending on the type of medical examination

Medical activity	Initial examination	Periodic examination
Anthropometry	x	x
Laboratory researches:		
- Blood test	x	x
- ESR		x
- Blood sugar	x	x
- Creatinine	x	x
- Urea		x
- ACAT		x
- ALAT		x
- Iron		x
- Urine	x	x
ECG	x	x
Medical history and physical examination	x	x
ECG exercise test and physical work capacity assessment		x
Echocardiography		x (once every 2 years)
Consultation with a cardiology specialist		x
Consultation with a specialist in orthopedics and traumatology		x
Consultation with a doctor from another specialty in case of need	x	x

CERTIFICATE

for an initial medical examination

Name, Surname and Family name of the Athlete :

.....

Sport:

Date:

1. Anthropometry :

Height : Weight:

2. Laboratory tests :

Blood test:	Urine:
Blood sugar:	Creatinine

3. ECG:

4. History and physical examination

5. * Consultation with

/if necessary /

Conclusion :

<input type="checkbox"/>	Allowed	
<input type="checkbox"/>	Not allowed	
<input type="checkbox"/>	Allowed under the following conditions :	
<input type="checkbox"/>	Not allowed	Time limited:

Participation in training and competitive activity in(type of sport).

Doctor:

- ▶ Each person who has undergone a mandatory initial and periodic medical examination shall receive a medical certificate in an appropriate form.
- ▶ In the case of initial and periodic medical examinations of persons with disabilities, it is mandatory to consult a specialist doctor whose competence is the disability.
- ▶ The persons , who have not passed the obligatory initial and periodic medical examinations, are not admitted to or removed from training activities and competitions.
- ▶

- ▶ The mandatory periodic medical examination is performed:
- ▶ twice a year - for athletes included in the national teams for men and women in the following sports: badminton, basketball, biathlon, boxing, wrestling, weightlifting, volleyball, rowing, judo, canoeing, karate, cycling, lightweight athletics, swimming, cross-country skiing, alpine skiing, snowboarding, taekwondo, soccer and rhythmic gymnastics;
- ▶ once a year - for all other athletes
- ▶ Depending on the results of the review, the conclusion may contain a period for which the person is not allowed to participate or is allowed to participate under certain conditions



CERTIFICATE
for periodic medical examination

Name, Surname and Family name of the Athlete:

Sport:

Date:

1. Anthropometry:

Height: Weight:

2. Laboratory tests:

Blood test:	ESR:	Blood sugar:	Creatinine:
Urea:	ASAT:	ALAT:	Fe:
	Urine test:		

3. ECG:

4. History and physical examination:.....

5. ECG exercise test and physical work capacity assessment

6. Echocardiography (once every 2 years).....

7. Consultation with a cardiology specialist 8. Consultation with a specialist in orthopedics and traumatology
.....

9. Consultation with a

(in case of need)

Conclusion:

<input type="checkbox"/>	Allowed	
<input type="checkbox"/>	Not allowed	
<input type="checkbox"/>	Allowed under the following conditions:	
<input type="checkbox"/>	Not allowed	Time limited:

Participation in training and competitive activity in(type of sport).

Doctor:



Main conclusions

- ▶ Medical examination is mandatory for all professional athletes. Given its importance and complexity, a multidisciplinary team of healthcare professionals should carry out a thorough initial and periodic evaluation. A proper health check will optimize the performance of the wrestler and reduce the risk of illness.
- ▶ The volume of medical activities depends also on the financial resource.

THANK YOU FOR YOUR ATTENTION!

