

12

AEROBICS



HISTORY

Aerobics is a form of physical exercise which combines rhythmic elements with stretching and training routines. The word 'aerobic' was coined, however, not in the context of exercise but to describe certain bacteria that needed oxygen to survive. This was a result of the work done in the late 19th century by French biologist Louis Pasteur.

Two physical therapists working with the United States Air Force, Col Pauline Potts and Dr Kenneth Cooper, developed a series of aerobic exercises to combat cardio-vascular diseases. Cooper, who published books called *Aerobics* and *The New Aerobics* in 1968 and 1979, respectively, is considered the 'father of aerobics'. He defined aerobic exercise as the ability to use the maximum amount of oxygen during exhaustive work. In the 1970s, the exercises developed by Cooper were popularised worldwide by a series of exercise videos featuring Hollywood film star Jane Fonda.

The rise of aerobics as a competitive sport began

when *Federation Internationale de Gymnastique* (FIG) included aerobics as a discipline in the FIG competition programme in 1993. The first Aerobic Gymnastics World Championships were held by the FIG in 1995 at Paris. National-level aerobic gymnastics championships have been held in the USA since 1984. There is another international organisation called the Federation of International Sports, Aerobics and Fitness (FISAF), which provides certification to aerobics instructors and conducts competitive aerobics events worldwide. The main organisation in India that conducts aerobics gymnastics events is the Indian Sports Aerobics and Fitness Federation (ISAFF), which was founded in 2002.

AEROBICS COMPETITION FLOOR, EQUIPMENT AND OFFICIALS

- ❖ The podium is 80 cm to 140 cm high. It is closed off at the rear with a background. The size of the podium is not less than 14 m × 14 m.

Figure 12.1 Aerobics usually combines rhythmic elements with stretching and training routines.



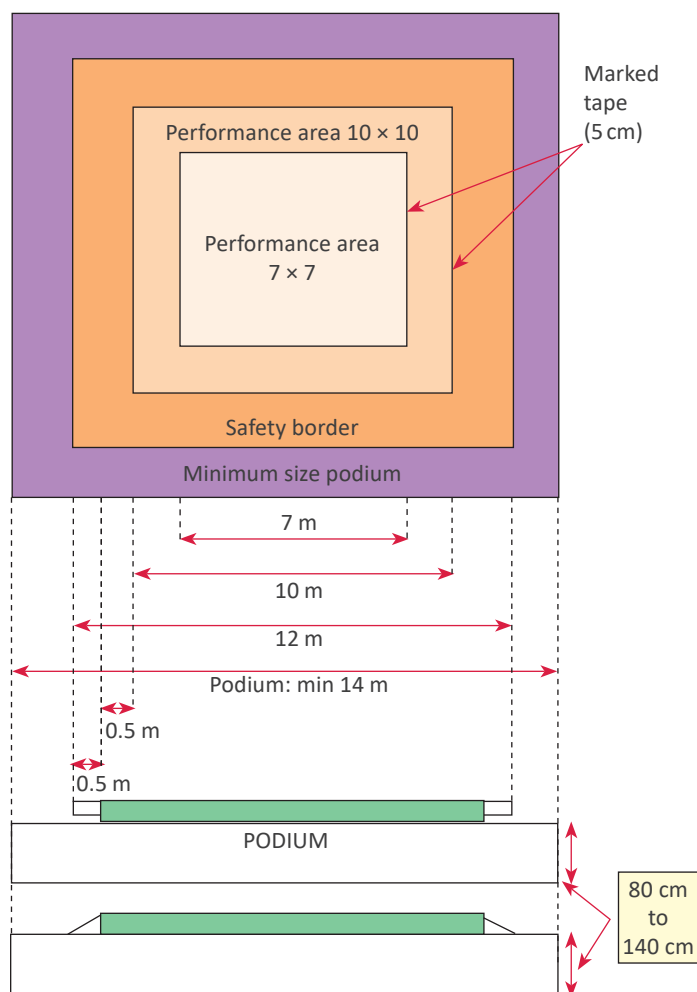


Figure 12.2 The competition floor for aerobics

- ❖ The competition floor must be of 12 m × 12 m. It must have a clearly marked competition area of 10 m × 10 m for all categories of seniors (7 m × 7 m will be used for some categories of aerobics gymnastics).
- ❖ The tape is included within the measurements of the competition area.
- ❖ The quality of the sound equipment must be of a professional standard. Apart from the regular equipment, separate loudspeakers for the contestants and a CD player are needed.
- ❖ Women's attire:
 - Women must wear a one-piece leotard with flesh coloured or transparent tights. They can also wear a unitard, i.e. one-piece leotard with full length neck to ankle. Sequins are allowed.
 - The neckline of the front and back of the leotard/unitard must be no further than half of the sternum for the front and no further than the lower line of the shoulder blades for the back.

- Attire for women may be with or without long sleeves. Long sleeves must cover the wrist.
- Long tights / full-length unitard are allowed.
- ❖ Men's attire:
 - Men must wear a unitard or shorts. They must also wear a form fitting top or leotard having sufficient support.
 - The attire must not have an open cut at the front or back.
 - The cut for the armhole must not be below shoulder blades (scapular).
 - Sequins for men's attire are not allowed.
 - 3/4 leggings, long gymnastics trousers (leotard + trousers), 1 piece combi-trousers are allowed.
- ❖ Hair must be secured close to the head. The competitors must wear white aerobics shoes and white socks which can be seen by all judges. Aerobics attire must be made of non-transparent material, except for sleeves for women.
- ❖ The judges panels are seated in front of the podium. Diagonally at the corners, the line judges are seated. Immediately behind the judges panel the Superior Judges are seated.
- ❖ There is no equipment used in the routines except for the step equipment used for aerobic step events.

RULES OF AEROBICS

1. Aerobic gymnastics is the ability to perform continuous complex and high intensity aerobic movement patterns to music. The routine must exhibit continuous movement, flexibility, strength and the utilisation of the seven basic steps, with perfectly executed difficulty elements.
2. The length of a routine in each category is 1 minute 20 seconds, with a tolerance of plus or minus 5 seconds. The routine must be performed in its entirety, to the music.
3. The AG routines are scored by the judges panel on three main criteria : Artistic, Execution and Difficulty.
4. Points can also be deducted for aspects like prohibited moves, attire errors, performance interruptions, disciplinary penalties, etc.
5. The final score after adding the judges scores in each category and deducting the penalties decides the winner in each event.

6. In case of a tie, the highest total score in execution is considered. If the scores are the same, the highest total score in artistic is considered. If the scores are still the same, the highest total score in difficulty is considered. If the tie remains, it is not broken.
7. AD routines are judged on two criteria:
 - ❖ Artistic (10 points) – This is further divided into music and musicality, dance content, general content, space/formation and artistry.
 - ❖ Execution (10 points) – This is further divided into technical skill (7 points) and synchronisation (3 points).
8. AS routines are judged on two criteria:
 - ❖ Artistic (10 points) – This is further divided into music and musicality, step content, general content, space/formation and artistry.
 - ❖ Execution (10 points) – This is further divided into technical skill (7 points) and synchronisation (3 points).

FUNDAMENTAL SKILLS OF AEROBICS

While there are many types of allowed moves that one can include in an aerobics routine, there are seven skills or steps that are considered fundamental to the sport and need to be utilised efficiently in all routines. These fundamental steps are:

1. March
2. Jog
3. Skip
4. Knee lift
5. Kick
6. Jack
7. Lunge

TERMINOLOGY

Aerobic Dance: Group choreography utilising the aerobic movements in dance style. The routine must include 32 to 64 counts of street dance as a second style. The routine may include acrobatic and/or difficulty elements, but they will not receive any value.

Aerobic Step: Group choreography utilising the aerobic basic steps and arm movements with step equipment, performing to the music. The routine must not include any difficulty and acrobatic elements.

Aerobic Movement Patterns (AMP): Combinations of basic aerobic steps together with arm movements: all steps are performed to music and create dynamic, rhythmic and continuous sequences of high and low impact movements.

AMP Sequence: A complete 8-count of movements performed with aerobic movement patterns.

Choreography: The mapping out of the body's movements, over space and time as well as in relation to other performance partners.

Composition: The movement vocabulary, including elements of difficulty, and the structuring of aerobic routines. It is most often the coach and/or the choreographer who develops this composition.

Difficulty Elements: Elements listed in the element pool of the code of points with a number and a value.

Lift: When one or more competitors are lifted to shoulder level or higher of the supporting partner(s) showing precise position(s). At the beginning of the lift, the base competitor must be in standing position.

Linking: To connect with. Connection of movements without changing levels.

Musicality: Ability of the performer(s) to interpret music and to demonstrate not only its rhythm and speed, but its flow, shape, intensity and passion within the physical performance.

Perfect Execution: The ability to perform all the movements with maximum precision without errors.

Physical Capacities: The ability to deliver active and passive flexibility, strength, amplitude, power and endurance.

Superior Jury: The Superior jury is responsible for controlling the work of all judges and the chair of judges panel according to the rules and to guarantee a correct publication of the final scores. It registers the deviations of the judges scores. The superior jury has the right to warn and replace a judge if there are repeated deviations.

Synchronisation: Ability to execute all movements as a unit, with identical range of motion, start and finish at the same time and of the same quality. This includes arm movements.

Technical Skill: Ability to perform movements with perfect technique and in maximum precision, correct posture and body alignment. It is affected by the physical capabilities (active and passive flexibility, strength, amplitude, power and endurance).

Transitions: Passage from one form, state, style, or place to another which connects two themes or sections of the routine.

IMPORTANT TOURNAMENTS

Aerobic Gymnastics World Championships, Aerobic Gymnastics Asia Cup, National Sports Aerobics, Fitness and Hip-hop Championship



SUMMARY

1. Aerobics is a form of physical exercise which combines rhythmic elements with stretching and training routines.
2. Aerobic gymnastics or sport aerobics is a form of aerobics that combines choreography with rhythmic elements and acrobatic gymnastics with elements of aerobics.
3. Aerobics first became popular in the United States of America because of research on the benefits of aerobic exercises on preventing cardio-vascular diseases. A series of exercise videos featuring actress Jane Fonda made it popular among households in the 1980s.
4. International events in aerobic gymnastics are governed by FIG.
5. Competitive aerobics events usually take place across seven categories.
6. Aerobic routines are scored by a panel of judges based on criteria like artistic, execution and difficulty.



QUESTIONS AND ANSWERS FOR VIVA

1. Who is often referred to as the 'father of aerobics'?
- Ans. Dr Kenneth Cooper is referred to as the father of aerobics.
2. What is the definition of aerobic exercise according to Dr Kenneth Cooper?
- Ans. According to Dr Kenneth Cooper, the definition of aerobic exercise is the ability to use the maximum amount of oxygen during exhaustive work.
3. The term 'aerobics' was coined by which famous French scientist?
- Ans. The term 'aerobics' was coined by the French scientist Louis Pasteur.
4. A series of exercise videos by which American film star helped in making aerobics a popular activity in the USA?
- Ans. A series of exercise videos by Jane Fonda helped in making aerobics a popular activity in the USA.
5. When were the first Aerobic Gymnastics World Championships held by the FIG?
- Ans. The first Aerobic Gymnastics World Championships were held by the FIG in 1995.
6. Name any four event categories in which competitive aerobics events are organised.
- Ans. Competitive aerobics events are organised in five Aerobics Gymnastics (Individual women, Individual men, Mixed pair, Trio and Group) categories and one category each in Aerobics Dance and Aerobics Step. (Pick any four)
7. How many members make up one group in a standard Aerobics Dance or Aerobic Step event?
- Ans. In a standard Aerobics Dance or Aerobic Step event, a group consists of 8 members.
8. What is the length of a routine in any event in competitive aerobics?
- Ans. The length of any routine in competitive aerobics is 1 minute 20 seconds, with a tolerance of plus or minus 5 seconds.
9. How many basic steps are there in Aerobic Gymnastics?
- Ans. There are seven basic steps in Aerobic Gymnastics.
10. Name any three of the basic steps in Aerobic Gymnastics.
- Ans. The basic steps in Aerobic Gymnastics are march, jog, skip, knee lift, kick, jack and lunge. (Pick any three)
11. What is the term used in competitive aerobics to refer to the ability to execute all movements in a routine as a unit, with identical range of motion and starting and finishing at the same time and at the same quality?
- Ans. The term to describe the above is synchronisation.
12. Which organisation organises the National Sports Aerobics, Fitness and Hip-hop Championship in India?
- Ans. The Indian Sports Aerobics and Fitness Federation (ISAFF) organises the National Sports Aerobics, Fitness and Hip-hop Championship.