

STAGES OF ATHLETIC TRAINING

Athletics can be practiced from an early age, since it is composed by natural actions, however, it should not be directed to be competitive, or subjected to severe and rigid training programs. The stages or phases that every athlete should experience would be (Gil et al. 2000):

1.- STAGE 1: INITIATION.

This stage is between two critical moments, from 4 to 6, and from 14 to 16 years. It is a period of emotional serenity really useful to learn all kinds of things, mainly technical. It is also a suitable period to motivate children towards sport, or the activity set, in an organized, pleasant and efficient manner.

The multidisciplinary development of all the skills should be encouraged, with particular emphasis on technique and proprioception, to facilitate the subsequent acquisition of more complex techniques in later stages. To this end, all the athletic events should be practiced in a fun and relaxed way, not just those involving strength, speed or plain endurance, but also the technical ones (for example pole vault), the ones which require a great sense of rhythm for its implementation (long jump), the ones which require a good dynamic balance (hammer) or the ones requiring fast technical gestures (hurdles).

In the initiation phase there is no need of expensive material. Waste material can be reused, like cardboard boxes to make obstacles, pieces of hose to make throws, PVC tubes to make relay batons, old tires to make circuits, etcetera.

According to Gil et al. (2000), the main skills that should be trained, should be the speed, maintaining the flexibility, the strength development associated with another psychomotor quality (for example accuracy throws), and the endurance as the sum of intermediate intensity recreational activities, leaving endurance training for older ages (from 15 years onwards). Gil reports that nowadays children are working too much on the endurance, to run cross country and amateur races, in detriment of the training of more technical events, or others which need more strength or speed.

The children should be initiated in the practice of combined events with devices and rules adapted to their physical and technical condition. Ideally, this phase is done within the school by promoting inter- and intra-school meetings.

Coaches should pay special attention to the body position, working in a balanced way, not to cause muscle decompensations that can generate unbalance and future bilateral asymmetries in the body position.

The early initiation in competitions is not a problem, what should be avoided is the specialization of the child too early, saturating him with the practice of a single event since childhood.

On this stage the goal of learning the sport and acquiring the fundamental skills is more important than the achievement of short and medium term objectives.

According to Ballesteros, training should be generic and balanced. He recommends:

- To use a variety of exercises, games, athletic events and exercises of other sports.
- Organic training prevails over the muscular training.
- To run at different paces, strides length and frequencies, and with natural obstacles.
- To perform starts from different positions to increase the reaction time of the child.
- To perform jumps and throws in general, without focusing in the technique (differing from Gil et al.) and with low weights.
- To apply global learning methodologies, rather than analytical.

It is also necessary to work at this stage the athlete's attitude for the training session (are we training or playing?), using games and exercises not very exhaustive from a physical point of view, fun and enjoyable, but oriented to an objective already set and clear for the children. The child has to realize that only through work (training or playing) he can improve and fulfill a settled target. This attitude will be very useful in the future, both in athletics (or any other sport that the children could practice in the future), and in their daily living.



1.1.- KID ATHLETICS

Aware of the importance of the initiation phase and the need to “engage” the child from the start with a more recreational athletics, the International Amateur Athletics Federation (I.A.A.F.) developed a program called “KID ATHLETICS” based on British experiences, which has been translated and adapted by the R.F.E.A in the book “*Jugando al Atletismo*”. The R.F.E.A. includes in its regulation the recommendation to plan “*other different events, with a more recreational component, and at the same time educational, both in the athletics track as in other facilities outside it, using them as recreational entertainment circuits based on age, with multiple events and relays. The team competition will be the primary system used.*”

The characteristics of the competitions and events explained in “*Jugando al atletismo*” would be in summary:

- Active participation of many children at once. Girls and boys in equal numbers if possible.
- Team competitions in which everyone contributes, avoiding praising the stronger or faster.
- Identification of the teams using colors.
- Adaptability to the local conditions: venue, day of the week, etcetera.
- Different competition venues: indoor gyms, playgrounds, parks, athletics tracks, football fields, beaches, shopping centers, and other spaces.
- Use of simple materials, colorful, safe and easy to manufacture or to acquire.
- Competitions with simple rules and appropriate for children, different from the standard I.A.A.F. events.
- Children are supposed to participate in more than one event.
- Frequent competitions, every week, or every two weeks, lasting approximately two hours (fast and agile), and in which the child participates all the time, whether it be competing or as an animator of their team.
- Implementation of various basic athletic movements adapted to their age and coordinative abilities.
- Easy rules and scores of the events.
- Desire to bring the children into athletics with an engaging, motivating and satisfying experience.
- Competitions controlled by a small number of monitors and/or collaborators.
- Important role of the prizes or awards at the end of the competition, as well as the team, schools, or clubs, standings.

Although different events can be set, some of the recommended ones are:

- Obstacle circuits
- Races going and coming back, flat or with obstacles.
- Interval endurance
- Repetitions of an exercise at a given time (mainly jumps).
- Standing jump (feet together).
- Long jump with a short run.
- Long jump with a pole.
- High jump using the “scissor kick” technique.
- Quadruple standing jump.
- One-foot balance.
- Distance, elevation, and accuracy throws, with different devices and both arms.
- Cross country races with a limited pace in the first half. Running in teams.

2.- STAGE 2: IMPROVEMENT.

This stage happens between 13 and 15 years. The child suffers major disruptions in his body due to the growth, which will complicate the learning of new skills, so the coaches should limit the training to the improvement (or even maintenance) of prior learning. This age corresponds with puberty, a difficult and confusing stage, where any kind of teaching is difficult since the child tends to seek the development of his individual personality and independence. It is the first time with a high risk of dropping out athletics.

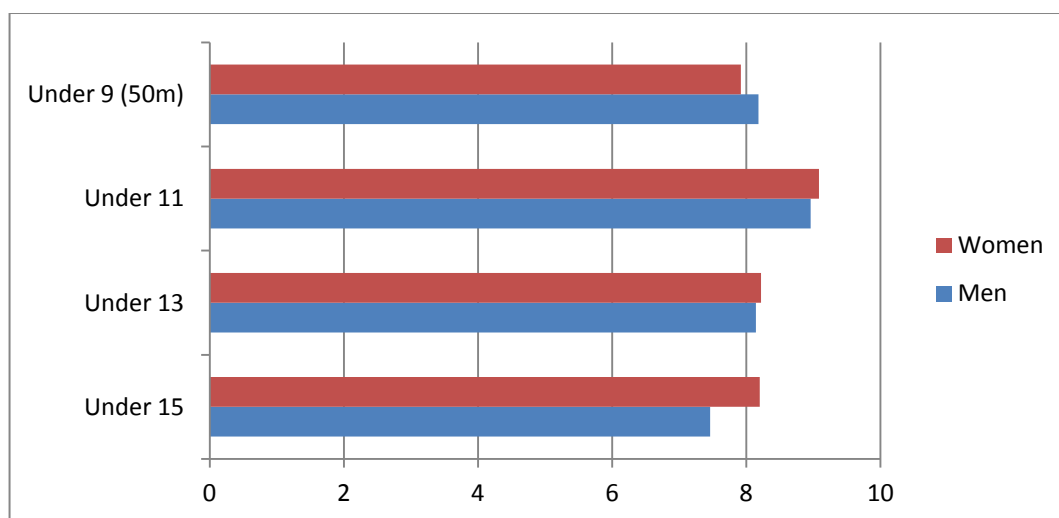


Table 1.- Madrid Indoor short sprints times 2009-2010 (using the average top 5 times).



During the initiation stage, due to the earlier development in girls, the results between boys and girls are quite similar; it can be appreciated in a ranking of the Madrid Athletics Federation (see Table 1). However, due to hormonal, physiological and typological changes occurring at this age, children's performance increases dramatically at this stage. Trainings in this period (and successive ones) should take into account differences between genders.

Boys and girls at this stage can, and should, train together. However qualified coaches should teach children appropriately and they should ensure that they do not disturb the finality and quantity of the athletic, physical and psychological development.

At this age we can begin to differentiate the different body typologies: taller, shorter, fatter or thinner. Some children's development starts earlier and some others do it later.

In table 2 we can see the actual athletic categories, which were modified in the 2001-2002 season. At this stage children are studying Secondary education, and they switch from U13 to U15 where there are National championships and Regional teams which introduce the children from the purely school context to the national competitions. Events are very similar, in most cases, to the senior ones, and the categories U15 and U17 can even compete in club competitions with senior athletes, with the risk associated of making false comparisons.

Sportive stage	INITIATION					IMPROVEMENT				SPECIALIZATION		HIGH PERFORMANCE				
Educational stage	"Primaria"					"Secundaria"				"Bachillerato"		"Universidad"				
Age	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Age group	U9		U11			U13		U15		U17		U20		U23		
Spanish Categories	Benjamín		Alevín			Infantil		Cadete		Juvenil		Junior		Promesa		

Table 2.- Current categories, associated with their age and stage.

Gil (2000) explains that it is the time to educate the perseverance in the methodical and continuous training, with large doses of motivation and psychology. The technical requirements in this stage are very important, however, the training loads should be controlled, in kilos, kilometers and repetitions, not to make them excessive. The locomotor system is still immature and too much training can lead to chronic injuries.

3.- STAGE 3: SPECIALIZATION.

It corresponds to the ages between 16 and 18. Adolescents begin the most demanding educational stage, the last years of the secondary school (“Bachillerato”) and the first year of university, really important for their future. The young athletes are subjected to many external pressures that can make them, again, abandon the practice of athletics.

It is only at this specialization stage, when the basic and general training should finish, and when the young athletes should specialize in one type of events (sprints, jumps, throws, endurance, or race walking). The coach should work with him looking to an athletic performance in the medium term, although he should keep on working on other events in certain specific moments of the season.

The junior athletes finally face the senior distances, weight, and heights, what can lead in some cases to disappointment and dropouts. It is the stage when the largest number of girls drops out, since the body developments stops, and in many cases the fat index and/or the poor muscle development do not allow a proper progression.

Dropouts are also produced because of the studies or jobs. Boys tend to combine better than girls the practice of a sport with their university studies or jobs. Also the emotional life is lived with a disproportionate intensity for their age both in girls and boys.

Events and distances selected by the R.F.E.A for each of the categories try to follow a progressive specialization pattern. Not all the events are included in the programmes for the young ages, but they are added progressively, and the weights and heights are adapted to the possibilities of the youngsters. However that does not fully prevent the coaches forcing the children to specialize too early, and making their athletes train with excessive workloads (not suitable for their age), sharing sessions with older athletes in order to get a better performance. Early specialization is something to be avoided whenever it



is possible since children can be saturated, and their progression limited, impossible to overcome later in many cases.

4.- STAGE 4: HIGH PERFORMANCE.

It is not our target in this course; it will be covered in subsequent courses.

5.- STAGE 5: LONG LIFE ATHLETICS.

This is a stage pointed out by Ballesteros (1992). It should be taken into account in all texts about athletics, as well as institutions and media to promote a recreational athletics similar to “Kids Athletics”. Competitions should be based on the regular athletic events, but with a more relaxed philosophy (to have fun, to promote social relationships), and especially, trying to maintain and improve the health and fitness of the athletes.

6.- BIBLIOGRAPHY.

- Ballesteros (1992). Manual Didáctico del Atletismo . Edited by the IAAF.
- Gil, F., Pascua, M., Sanchez, R. (2000) Manual Básico de Atletismo . R.F.E.A: Madrid.
- I.A.A.F. (2011). Competition rules 2012-2013 .
- Grossocordon, J., Duran, J., Sainz, A. (2004) “Jugando al atletismo” . Edited by the RFEA, Madrid. http://www.rfea.es/menores/pdf/jugando_al_atletismo2007.pdf (January 2012)
- R.F.E.A. (2011). “Reglamentación temporada 2011/2012” . Edited by the RFEA, Madrid.