THE CHILD HYPOKINETIC AND THE OVERTRAINED

Gaetano Altavilla¹, Franco Furino², Marika Di Palmo¹ and Gaetano Raiola³

¹ University of Basilicata, Potenza, Italy
² University of Molise, Campobasso, Italy
³ University of Parthenope, Napoli, Italy

Abstract
The early start to the sport of children still concerned scholars and researchers to the likely risks of competitive early, neglecting the safest procedure and come to damage caused by sedentary early. The child just started attending primary school turns his freedom of movement in a full-time sedentary. Physical activity and sport are fundamental stimuli for growth and improvement of physical, motor, mental and social-emotional in us. The lack of physical and sporting activity or excessive exercise can cause substantial damage during the growth phase, therefore we must respect the physiological limits dictated by the nature of the growth, and thus the primary purpose of the teachers and coaches should be that of the benefit of the children. The aim to examine some issues related to overtraining and the untrained.

Key words: sedentary early, competitive early, physiological principles

Introduction
The early start to the sport of children still concerned scholars and researchers to the likely risks of competitive early, neglecting the safest damage caused by sedentary early (Calderone et al. 2001). The child just started attending primary school turns his freedom of movement in a full-time sedentary. The period from 5 to 14 years, depending on how it is experienced by the motor point of view, it can strongly affect the welfare and adult mental and physical balance. Physical activity and sport are fundamental stimuli for growth and improvement of physical, motor, mental and social-emotional (Raiola et al., 2014; 2015; Altavilla 2012a; b; Altavilla & Rago, 2015). The lack of physical and sporting activity or excessive exercise can cause substantial damage during the growth phase (Raiola, 2012b), therefore we must respect the physiological limits dictated by the nature of the growth, and thus the primary purpose of the teachers and coaches should be that of the benefit of the children. This article examines some issues related to overtraining and the untrained, aspects to be taken into account in the performance of physical and sporting activities. The focus is on children who may find themselves in situations beyond the limits of their physiological stage of development and children with decreased or absent physical and sporting activities due to a unqualified preparation of teachers or coaches of the first school cycle, or of the overprotection family. The child has his own ways of learning that must be recognized and respected by adults to enable them to grow in a balanced way (Squassabia & Spiritelli, 2012). For their full physical mental and harmonious development, children and adolescents need a certain amount of movement (Weineck, 2009). And now known to all as the cognitive mechanisms depend on the movement, in fact, there is a strong correlation between the increase of physical and sporting activities and a significant increase in psychomotor development. The total lack or untrained exercise can significantly reduce the amount of stimulation required for normal development of organs and systems. There are, then, other factors affecting the growth of the child, such as malnutrition, disease, hygiene and climate. The effect of physical and sporting activities on growth and on bones is well known, in fact, the temporary immobilization, for example, following a serious accident, makes hypotonic and untrained. Habitual physical activity and sport lengthy (even in adulthood) could provide a kind of insurance against cardiovascular disease. Today, obesity or being overweight are considered to be important elements in the untrained syndrome of the child; hypokinetic also in children has been demonstrated the presence of a certain muscle weakness. It is difficult to determine what the optimal levels of physical activity required for the physiological development of the individual child; however we can assume that a child is able to self-regulate the intensity of their habitual physical activity, alternating brief heavy loads with short breaks for recovery, making use of forms of intermittent exercises. This type of activity is essential for the child, since the intensity of the spontaneous activity appears to be greater than that imposed by parents or teachers. The value of heart rate during spontaneous activity is around 150-160 beats per minute (Figure 1). In general, the minimum time that the child has to devote to physical activity, spontaneous or controlled should be at least an hour a day. However, many children who live in cities do not have the opportunity to perform spontaneous activity, while children living in the countryside are deprived of the possibility of a true sports training (Raiola & Tafuri, 2015).

The early exercise can be harmful
The increasingly early participation in sports competitions in certain sports and the growing intensity of the workouts (over 15 hours per week) pose many problems.
In particular, the structure and posture of children engaged in intense workouts are better than that for inactive children, but these children / athletes frequently suffer from musculoskeletal problems (Table 1).

Table 1 Musculoskeletal problems in particular sports

<table>
<thead>
<tr>
<th>Sport</th>
<th>Age</th>
<th>Backache</th>
<th>hours per week training</th>
<th>Years of training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basketball</td>
<td>6 - 14</td>
<td>20,0 %</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Soccer</td>
<td>6 - 14</td>
<td>8,0 %</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Gymnastics</td>
<td>6 - 14</td>
<td>52,0 %</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>Swimming</td>
<td>6 - 14</td>
<td>20,0 %</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Athletics</td>
<td>6 - 14</td>
<td>31,0 %</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td>Handball</td>
<td>6 - 14</td>
<td>38,0 %</td>
<td>14</td>
<td>4</td>
</tr>
</tbody>
</table>

Back pain is another problem that can be seen in the sport of high-level, due to the weakness of phasic muscles (gluteus, vastus medialis and abdominal) and by shortening of those tonics (iliopsoas, rectus femoris, and pectoral muscles hamstrings). These changes are mainly caused by static loads such as standing and sitting, and lack of muscle dynamics. The prevention of these alterations may be relatively simple, in fact just enter regularly in each workout stretching exercises. The improvements can already be observed after a few weeks from the use of stretching exercises for the shortened muscles and strengthening weak ones.

Conclusions

Proper proposal motor developmental age must respect the physiological development of the organism, taking into account the differences between the various devices, and the individual situation of the various parties, trying to adequately assess chronological age and biological age (Altavilla & Raiola, 2015; Altavilla et al., 2015; Raiola & Altavilla, 2015). The physical and sporting activities adequate constitutes a factor that leads to phenomena of positive biological adaptation, a protection against paramorphism, a preparation for active adolescence and a necessary prerequisite for the subsequent stages of sports training (Raiola, 2015a; b; c). On the other hand, both untrained, both stimuli workout with excessive loads or inadequate risk to a regular development and for future sports scores. In the case of the untrained, the physical performance capacity of an adult can be damaged; in the other case, the excessive intensity of training can produce other problems. Only subjects with a particular physical and mental strength and with a high talent motor can tolerate an intense workout for many years. The risk will be much lower if the systems training will be adapted to the physiological principles of child development and are to be avoided static, monotonous repetitions and asymmetrical ; must, however, protect the physical and mental health of the child rather than chasing success at any cost.

References


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**HIPOKINETIČKO I PRETRENIRANO DIJETE**

**Sažetak**
Rani početak sudjelovanja djece u sportu još zabrinjava znanstvenike i istraživače zbog mogućih rizika u ranom natjecanju, i zbog zanemarivanja sigurnosnih procedura isto kao i šteta uzrokovana sjedenjem. Dijete tek počne pohađati osnovnu školu i odmah pretvara slobodu kretanja u puno radno sjedećije vrijeme. Tjelesna aktivnost i sport su temeljni poticaji za rast i poboljšanje fizičkog, motoričkog, mentalnog i socijalno-emocionalnog u nama. Nedostatak fizičke i sportske aktivnosti ali i pretjerano vježbanje može uzrokovati znatnu štetu u fazi rasta, stoga moramo poštivati fiziološke granice koje diktira prirodni rast, a time bi i primarna svrha učitelja i trenera trebala biti korist za djecu. Cilj je ispitati neke probleme vezane uz pretreniranost i netreniranost.

**Ključne riječi:** rani sjedeći način života, rano natjecanje, fiziološka načela

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Received: December 15, 2014
Accepted: April 20, 2015
Correspondence to:
Prof. Gaetano Altavilla, Ph.D.
University of Basilicata
85100 Potenza, Matera, Via Nazario Sauro 85. Italy
Phone: +39 0971 202 011
E-mail: tanynella@alice.it