

Heavy backpacks & backache in school going children

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In this Modern era where everything is getting faster and better with new and innovative technologies, our life styles are becoming lazier and more sedentary. Children are more affected by this as their childhood outdoor games are replaced by smart gaming gadgets, leading to less physical activities, weaker bodies and physical problems. Among these physical problems, backpain is getting more abundant and need special attention by parents and community itself.

Backpain in children and youngsters aging from 10-19 years is reported to be more common as compared to adults.¹⁻³ Backpain in children is matter of serious concern as it can lead to severe back problems in adulthood.⁴ Low Backpain is defined as pain located between lower ribs and buttock folds.⁵ backpain in children are attributable to different factors like gender, age, sitting for long periods, working at computers, school seating, heavy school bags and psychological factors.⁶ Backpacks of school children are reported to be very heavy in different studies.⁷ Carrying a heavy backpack can cause postural changes and incorrect handling of backpack can cause severe backpain.⁸⁻¹⁰ When children walk with a heavy backpack on their back or shoulders, they lean forward and raise their heads. The weight of school bags and time carried have an adverse effect on cervical and shoulder region that may lead to a forward head posture.¹¹ back pain due to backpack depends on weight of backpack which should not exceed 15% of body weight as well as time for carrying it.¹² Many studies have revealed this fact that female children are more prone to this problem due to less physical strength and low BMI.^{13,14}

A study conducted in Malta on schoolbags found that 15% of students carry a schoolbag with a weight that is more than 20% of their body weight.¹⁵ Studies have shown that the prevalence of low back pain in schoolchildren ranges from 25% to 55% in the age group 10 to 15 years.¹⁶ Another study has shown that the prevalence of low back pain among children and

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teenagers varies between 11% and 52.1%.¹⁷ A study performed in Italy showed that 58.4% children of 11 years age carrying backpacks with 20% of their body weight, complained of having back pain.¹⁸ In Auburn University it was observed that the average weight of the backpack was 17% of the child's own weight and of the total students 67.2% developed back muscle soreness, 50.8% back pain, 24.5% numbness and 14.7% complained of shoulder pain.¹⁹

Studies from different countries of the world including Pakistan have shown prevalence of backpain in children which can be attributed to different reasons and factors. In this regard, detailed evaluation and precautionary measures should be taken as it could get worse with time and may cause permanent disability.²⁰ American Occupational Therapy Association (AOTA) and the America Academy of Paediatrics advise that students should carry no more than 15% of their bodyweight. David Marshall, a medical director of sports medicine at Children's Healthcare of Atlanta gives his recommendations to avoid backpain in children.²¹ Exercise and vigorous activity can strengthen the back muscles, thus lowering the risk for low back pain.

It is becoming a serious concern for Pakistani parents as Anwer Sumra wrote in the Express Tribune Newspaper that the weight of his son's bag, and the weight of the bag of other school children were heavier than their own weights.²² Abbasi Shaheed (Karachi) Hospital's Deputy Medical Superintendent warned managements of schools in the metropolis that children carrying heavy bags are at the risk of neck, back and shoulder pain. Parents and school management should make combined efforts like, lockers in schools which reduced the size of backpacks and proper selection of school bag to reduce the effects etc.

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