



# PRO-TEEN

## Scientific Events

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### Articles

Adolescence and  
Gambling:  
An explosive Mix

Adolescence:  
Not Just for Kids

How to Choose the  
Condom That Will Suit  
Your Needs?

Healthy Active Living for  
Children and Youth

Review of Treatment for  
Eating Disorders

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### Publications



it's that time of the year again...

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**Legal Deposit, National Library of Canada ISSN 1201-5474  
Canada Post-Convention number 40032438**



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## Scientific Events

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### Adolescence in the New Millenium

#### CAAH 8th Annual Meeting - Toronto, October 30th 2002

The Canadian Association for Adolescent Health invites all members to attend the 8th yearly National Meeting, which will take place at the Hospital for Sick Children, in Toronto, on the 30<sup>th</sup> of October 2002.

The Guest speakers are: James Garbarino, Ph.D. Professor of Human Development, Cornell University Co-Director of Family Life Development Centre and Debra Pepler, Ph.D. psychology professor, York University, Director of The LaMarsh Centre for Research on Violence and Conflict Resolution.

In addition to the keynote address, there will also be interactive workshops and presentations on the most recent developments in adolescent medicine.

Here is a list of the workshops:

- Girls & Body Image
- Disability & Sexuality: Supporting Our Youth
- Smoking Zine: Web-based & Pharmacological Interventions for youth Smoking Cessation
- Self Harm
- Complementary & Alternative Medicine
- Ecstasy/Raves
- Teens & Contraception
- Depression & Teens

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## 3<sup>rd</sup> World Congress & Exposition

May 11-14 2003, Vancouver BC

The congress will provide you with an opportunity to better understand what we currently know and, more importantly, to set an agenda for the future; an agenda that we challenge you to be involved in and indeed take leadership in. The major areas of focus will be:

Promoting healthy lives

Providing quality education

Protecting against abuse, exploitation and violence

Combating HIV/AIDS

The 2003 Child and Youth Health Congress will focus on the Health Issues faced by children and youth within the context of the UN Special Session on Children. The Congress provides a setting for the international community to define opportunities and set priorities related to new knowledge development through research and the application of this knowledge to the health issues of children over the next decade.

The Congress will bring together child and youth health leaders, scientists, health workers, governmental and non-governmental organizations and industries from the international community. Participants will have the opportunity to hear more than 170 internationally renowned speakers, building on existing knowledge and establishing partnerships which will form the basis for new developments.

The plenary sessions, seminars and posters will be focused on responding to four questions:

What is our current state of knowledge in relation to science, practice and policy and what are the strategies for moving forward in the next decade?

What are the indicators that we can use at a regional, national and international level to measure our success over the next 10 years?

What opportunities exist for national and international collaboration in research, application or policy to improve the success of these strategies?

How can we engage youth to take interest in the health issues of children and support their career development in science, practice and policy?

Here are some of the plenary sessions that will be available at the congress: Environment, Sexual Health, Parenting, War, Disability, Influences on Development, Respiratory Diseases, Aboriginal Health...

For more information, please contact:

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## Articles

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### Adolescence and Gambling: An Explosive Mix



Gambling has become a veritable gold mine for the government. Loto-Québec's revenues alone amounted to nearly 3 billion dollars in 1998. More gambling opportunities mean more gamblers, but it also creates an increase in gambling dependency. Unfortunately, that is the price to pay for Loto-Québec's success: the number of pathological gamblers has been rising at an increasing rate. In 1997, in Quebec, the Secretariat à l'action communautaire autonome (SACA) evaluated the number of pathological gamblers, or individuals that lose control periodically or continuously towards gambling, to 270 000.

Adolescents are not spared by this phenomenon. According to the SACA's data, 90 000 adolescents from ages 8 to 19 are victims of pathological or compulsive gambling. Moreover, researchers from Laval University and Montreal University also confirm that there is a connection between drugs, alcohol, delinquency, poor academic achievement and gambling dependency in teenagers.

Young pathological gamblers consume more cigarettes, alcohol and drugs. They also show difficulties in school. They are expelled from class more often and their grades are lower than average. A quarter of those teenagers have already tried to commit suicide, although it is difficult to establish a link between these suicidal tendencies and the stress that stems from gambling losses. Furthermore, and contrary to popular beliefs, young adolescents (13 years old) are the biggest players, as if they were

imitating adults by being audacious. Gambling has already lost some of its appeal at the expense of other activities by the time teens turn 16 or 17.

The conclusions above were generated from a study conducted in the winter of 1996 in high schools of the Québec and Charlevoix regions on 3 426 teenagers from ages 12 to 18. The group being studied was composed of equal amounts of boys and girls. This study shows that gambling is now part of their lives.

Almost 9 adolescents out of 10 (87%) have participated in a game of chance, and 77% of them have gambled in the last 12 months. Lottery is the most popular game, followed by bingo, video-lottery terminals, and sports bets, as well as other types of bets. The proportion of adolescents participating in such activities at least once a week is still significant at 13%. At this level, a clear distinction between genders starts to appear, since twice as many boys (19% boys compared to 8% girls) are affected. Furthermore, twice as many boys recognize themselves as "pathological players," a category that encompasses 2,6% of the teens surveyed.

More than half (59%) of the adolescents surveyed said they had academic and family problems tied to their gambling habits, and 45% of them say they have suffered criticism from friends and peers because of their gambling problems. Half of them have fought over this problem and 16% of them have skipped school because of gambling. Almost a third (31%) had to borrow money to play without being able to



repay the debt. Many will steal to finance their dependency. Moreover, 73% of the adolescents surveyed say they have at least one parent who also gambles...

As time goes by, gambling is becoming less of a male activity. Prior studies to the one mentioned in this article placed the gambling ratio at 4 men to 1 woman. However, this study yields a gambling ratio of 2.5 men to 1 woman. Gambling is not as discriminate as it once was because it is now widely accessible.

Prior studies also found that impulsive adolescents were more likely to develop a dependence to gambling. In this context, an "impulsive" adolescent is considered to be an individual who cannot control his or her behavior and who acts without regard to consequences of his or her actions might bring. Therefore, there is a strong possibility that drug use and pathological gambling might evolve simultaneously because of a person's impulsivity. Researchers ask the question: Could we target children with impulsive behaviors and act preventively before the problem declares itself ?

To Learn More:

*Prévention et traitement du jeu pathologique*, by Robert Ladouceur et Jean-Marie Boisvert, from Ecole de Psychologie, Laval University, November 1997. You can also look for *Pathological Gambling and Related Problems among Adolescents*, in the Journal of Child and Adolescent Substance Abuse.

Did you know that...

Reuven and Gabrielle Brenner, in *Spéculation et jeux de hazard*<sup>1</sup>, explain that the French word lot comes from the Teutonic word *hleut*, which is actually the word used to describe the pebble used to settle disputes and to fix property limits. The Italian word *loteria* and the French word *loterie* are of the same origin. However the English and German meanings of the word lot can be both lottery and destiny.

A few interesting facts about compulsive and pathological gambling:

- Two pathological gamblers out of 3 commit illegal acts because of gambling. 30% of convicts are believed to be pathological gamblers.
- Pathological gamblers are prone to have suicidal tendencies, mental and stress related illnesses.
- The socioeconomic costs of pathological gambling have reached 4,8 billion dollars per year (Social services, Health services, public security, justice administration, taxes, welfare due to loss of employment, etc.)

(Source: Secretariat à l'action communautaire autonome (SACA), 1997)

(Loto-Quebec's revenues were 2,837 billion dollars in 1998)

<sup>1</sup> Brenner, Reuven and Gabrielle. *Spéculation et jeux de hazard*. PUF, Paris, 1993.



# A Review of Evidence-Based Treatments for Children and Adolescents with Eating Disorders

Joanne Gusella, Ph.D., Stephanie Casey, M.D., IWK Hospital, Halifax

## Introduction: The scope of the problem

The number of adolescents affected by eating disorders has increased over time (Lucas et al., 1991), and now includes youth of various cultural, ethnic and socioeconomic backgrounds (Lacey and Dolan, 1988; Lask and Bryant-Waugh, 1993). The prevalence of Anorexia Nervosa in 15-19 year old girls has been reported to be 0.48%, making this disorder the third most common chronic condition among adolescent girls after obesity and asthma. The prevalence of Bulimia Nervosa is less clear, with up to 5% of high school students meeting the diagnostic criteria, and up to 20% scoring in the abnormal range on standardized tests of eating attitudes and behaviours. The number of children meeting criteria for a diagnosis is much lower, but there is a lack of good epidemiological studies, and current diagnostic criteria do not fully capture the presentation of an eating disorder in childhood (Lask and Bryant-Waugh, 1993).

The sex ratio of boys to girls with eating disorders is higher in children and prepubertal adolescents than in postpubertal adolescents; 19% of children with anorexia nervosa are males (Hawley, 1985), compared to 5-10% reported in older populations. Epidemiological studies suggest that the majority of youth with an eating disorder also have a comorbid diagnosis, the most common being a Mood or Anxiety Disorder (Steiner and Lock, 1998). Boys and girls with eating disorders appear to be similar to each other in terms of psychiatric profile, family function and core issues (Geist et al., 1999).

## Treatment of Children and Adolescents

Given the potential for severe physical and medical consequences of eating disorders in children and adolescents, there is general agreement that they should be diagnosed and treated as close to onset of symptoms as possible (e.g., Lask and Bryant-Waugh, 1993). Two long term prospective outcome studies of youth with Anorexia treated with an inpatient admission, reported approximately 47% and 66% had recovered after 3, and 5 years, and up to 56% and 83% had recovered after 7 and 11 years, respectively (Herpertz-Dalhmans et al., 1996; Steinhausen, 2000). For those who continued in treatment after inpatient admission, treatment lasted for approximately 6 years (Steinhausen, 2000). Anorexia has the highest mortality rate of all psychiatric diagnoses with reports as high as 20% in very long term follow up studies (e.g., Theander, 1985). Deaths are attributable to suicide, and medical complications arising from the disorder. There is some evidence that “aggressive” treatment (i.e., restoring weight to 90% IBW in young people with a specialized multimodal approach, may reduce long term risk of mortality (Crisp et al, 1992; Strober, Freeman and Morrell, 1997). Less is known about the course and long term outcome of Bulimia Nervosa (Reas et al, 2001). While males are less likely to seek treatment, there is evidence that they have a long-term prognosis comparable to females (Wilson, Fairburn and Agras, 1997).

To date, few controlled studies of specific treatments have been conducted with children and adolescents. Standards for treating children and adolescents with eating disorders have been developed by professionals in the field based on research with adults, case studies, and clinical experience, and outlined as guidelines (e.g., Yager et al., 2000;



Canadian Pediatrics, Society, 1998). It is considered best practice to treat children and adolescents with a multi disciplinary team of trained health professionals to deal with the varied treatment goals including: 1. medical (i.e., weight restoration, return to physical health); 2. nutritional (i.e. normalizing eating patterns leading to weight maintenance within a healthy range, balancing of nutrition and activity); 3. psychological/psychiatric (i.e., resolution of distorted cognitions, body image and self-image issues, and treatment of mood and anxiety disorders); and 4. family (i.e., addressing communication, family relationships, and individualization issues).

In keeping with adult models of treatment, the selection of an intervention for a particular child is based on a decision tree model, which is derived from research, but also takes into account a stepped-care hierarchy of the least-to-most intrusive, and least-to-most costly intervention (Garner and Needleman, 1997; Robin, Gilroy and Dennis, 1998). This paper will review the evidence-based research in the context of the decision tree model.

### **Decision Tree: Relevant Questions and Evidence to Support Treatment Efficacy**

#### 1. Is the youth in serious physical danger?

Compared to adults, children are more vulnerable to serious medical complications with weight loss because of differences in their distribution of adipose tissue, making smaller weight losses more significant. Complications include growth retardation, impaired peak bone mass and structural abnormalities of the brain in the most severe cases (Golden et al., 1996). Psychological therapies are not effective with individuals who are in starvation. Therefore, the first priority is to restore weight, ideally to within 10% of ideal body weight, and to normalize eating patterns.

One or more of the following criteria would justify hospitalization for youth: 1. Severe malnutrition; 2. Failure of out-patient treatment to reverse weight loss, or binge/purge cycle; 3. Medical complications ; 4.

Suicidality or severe comorbidity. The youth are admitted onto psychiatric or pediatric units, that provide a caring environment, that is also highly structured (Anderson, Morse and Santmyer, 1985; Fisher et al., 1995) using behavioural protocols, where privileges or activity levels, are based on eating, weight gain (Anderson et al., 1985; Glendinning and Phillips, 1993; Gusella, 1998). Numerous studies have demonstrated the effectiveness of many of the specific behavioral techniques incorporated into this inpatient contract for producing weight gain (e.g., Halmi, 1985; Knibbs, 1993).

Ideally, patients should remain in the hospital until they have reached between 85% and 90% of their ideal body weight (IBW), they are eating and gaining weight regularly, the binge/purge cycle is under better control, and their parents are trained to take over the behavioral weight gain. It has been shown that the closer the patient is to ideal weight at the time of discharge, the lower the risk of relapse (e.g., Halmi and Licio-Paixa, 1989).

When the youth is no longer at acute medical risk, and is cooperative with the established eating protocol, partial hospitalizations, or day treatment may replace a prolonged hospitalization, to complete weight restoration, or to interrupt the binge/purge cycle. Day treatment programs have become popular because they can reduce treatment costs and also allow individuals to stay connected with a more normal lifestyle (e.g., Kaplan and Olmsted, 1997). Day Treatments have been shown to be beneficial with adults (Maddocks et al., 1992), and with adolescents where there is strong involvement with parents (Danziger et al., 1988), in terms of restoring weight, resumption of menstruation, stopping ritualistic behaviours within a follow-up period of 9 months after admission to the program.

#### 2. Is patient young and/or living with family (<18 years old)?

The recommendation that family therapy needs to be part of the treatment for youth under 18 is derived





from evidence-based research into the effectiveness of newer family therapy approaches. Traditional family therapy approaches to Anorexia Nervosa (e.g., Minuchin, Rosman and Baker, 1978), viewed the family as dysfunctional and failed to systematically evaluate treatment approaches. By contrast, the family therapy approach tested at the Maudsley Hospital, views the parent as the most important resource in mobilizing a starving youth (e.g., Dare and Szmukler, 1991). The approach has been manualized and tested in a series of controlled studies. Russell et al. (1987) evaluated this family therapy for preventing relapse following discharge from the inpatient program, where youth had been refed to 89.5% of average body weight for height. Family Therapy, was contrasted with standard supportive individual therapy in a random assignment, controlled trial, with 80 patients in 4 subgroupings based on age, timing of onset, and duration of Anorexia. They found that family therapy was superior for early onset, short duration AN (<18, less than 3 years) only, in terms of global outcome ratings including weight gain, nutritional status, menstrual status, psychosexual functioning. Individual therapy was superior to Family Therapy, but only in terms of weight gain, for the late onset group. In a second study, LeGrange et al. (1992), compared types of family involvement, and found that Conjoint Family Therapy and Parent Counseling (where parents are seen separate from youth), were equally effective. This suggests that seeing the family as a whole may not be crucial to the effectiveness of family therapy.

Robin et al (1998) report on a similar conjoint family therapy called Behavioral Family Systems Therapy (BFST). BFST also places the parents in charge of establishing a weight gain program for their adolescent with Anorexia, while the therapist acts as a supportive coach. When weight gain has been established, the therapy broadens to other relevant individual and family issues. In a controlled trial, BFST produced greater weight gain than Ego Oriented Individual therapy (in which parents were asked to relinquish control over eating to the therapist and youth), from pre to post assessment but by 1 year the advantage disappeared. Both therapies resulted

in large improvements in eating attitudes, depressed affect, and interoceptive awareness, which were maintained at 1 year follow-up, and in a limited sample to date of those who have reached 4 year follow-up. Dodge et al (1995), focused on a small sample of adolescents with Bulimia Nervosa (14-17 years of age) using the Family Therapy approach described from the Maudsley Hospital. The results were promising, but inconclusive because of the lack of an appropriate control group.

3. Is the youth responsive to other psychological treatments?

Cognitive Behavior Therapy given in individual and group formats, has been shown to be effective with adults with Bulimia Nervosa (Fairburn and Wilson, 1993). There are no published studies of CBT for children with eating disorders, however cognitive behavioral tools are incorporated into programs developed for youth (e.g., Why Weight, Schmelefske et al., 1999). The goals of behavior therapy are aimed at using self-monitoring to identify triggers, to disrupt binge/purge patterns, to teach cognitive restructuring. There is also a focus on relapse prevention. CBT, combined with the Narrative approach of "externalizing the symptom" and use of story metaphors (e.g. Madigan and Greaves, 1997) has been shown to be effective for children with related disorders ( March, Mulle and Herbal, 1994). These approaches have been found to be clinically useful with youth with eating disorders, but have not been systematically assessed (Gusella, 1999; Manley and Needham, 1995). Interpersonal Psychotherapy is a short term therapy focusing on significant interpersonal relationships that have influenced the maintenance of the bulimic behaviours. It has been tested with adults with Bulimia Nervosa, and found to be equally effective when compared to CBT in the reduction of binge-eating, purging, dietary restraint, attitudes and body weight and shape, body weight, general psychiatric symptoms at the end of a 12 month follow up period (Fairburn and Wilson, 1993). IPT for depression has been found to work with depressed adolescents (Mulson et al., 1994), suggesting that IPT for adolescents with Bulimia Nervosa, modeled



after the adult treatment package, may also be beneficial.

Group work has been a main method of treatment delivery with adults with Bulimia Nervosa. It has been found to be beneficial in terms of: reducing eating disorder symptomatology, fostering self-disclosure (e.g., Fettes and Peters, 1992), and reducing treatment costs. Despite the potential benefits, few articles dealing with group psychotherapy for adolescents exist (e.g., Manley and Needham, 1995; Stuber and Strober 1987). Gusella and DeWolfe (1997) found that girls rated universality (i.e., finding out that I am not alone) as the single most important aspect of group. Given that peer relations are so important to youth at this age, group offers a safe, supportive atmosphere to connect with peers who share and understand what it is like to struggle with an eating disorder (Cramer-Azima, 1992). The group format has also been successfully extended to working with multiple families (in the absence of the identified youth), for support and psycho education (Eliot, 1990, Crisp et al, 1991), and has been shown to be as effective as seeing families individually (Geist et al., 2000).

There has been a recent recognition that individuals are at different stages of readiness when they present for help with psychological problems, and many are not yet ready to benefit from action-oriented therapies (e.g., Prochaska and DiClemente, 1992). Motivational Enhancement Therapy (MET) is aimed at helping individuals to prepare for action. When compared to CBT with adults, it was effective as a first phase of treatment (Treasure et al., 1999). In an uncontrolled study, Gusella et al. (in preparation) found that youth with eating disorders, who are in "pre-action" stages, move closer to taking active steps to deal with the disorder, over the course of a short-term group treatment, consistent with adult work (Feld, et al., 2001).

Is psychological therapy better than no therapy at all? Crisp et al. (1991) compared 3 randomly assigned treatment regimes for AN: 1. Inpatient treatment (multimodal) for several months followed by outpatient work (12 sessions) 2. Outpatient individual

and family psychotherapy (12 sessions); 3. Outpatient group psychotherapy (10 sessions for youth, 10 for parents); 4. Assessment only (no treatment control). The three treatments included a standard approach to diet and weight gain. All three interventions were significantly better than the no treatment control. Maximum weight gain achieved during treatment was within 90-95% IBW range for all treatment groups, and at one year post assessment, weight was maintained above 85-90% IBW, while maximum weight gain by the no treatment control group was 82% IBW at time of assessment, and 75-80% IBW at 1 year follow-up. At 2 year follow-up, both outpatient treatments continued to be more effective than the control condition on weight gain, menstruation, mental state, and socioeconomic adjustment. It is not possible to separate the individual-family components of treatment, however, the results provide evidence that therapy is better than no therapy at all.

4. Would youth benefit from pharmacotherapy as an adjunct to psychological treatment?

There are no outcome studies on the use of pharmacotherapy for children and adolescents with eating disorders. With adults, CBT is the psychological treatment of choice for Bulimia Nervosa; fluoxetine adds only modestly to psychological benefit (Gillberg and Rastam, 1998). For the treatment of Anorexia, it is still felt that "food is the best medicine", with only open trials on the benefits of fluoxetine (Kaye et al., 1991) and case reports on other drugs.

## Conclusions

To date, there are few well-controlled studies to guide the selection of treatment approaches with children and adolescents. Clearly, there is a need for evidence-based research to determine the developmental suitability and effectiveness of various treatments that have been found to be effective with adults. The decision tree model of treatment makes intuitive clinical sense, but it is difficult to systematically test its efficacy. The ideal test would be to look at the effectiveness of treatments separately and in



combination (e.g., Davis, 1999), or to compare the addition of treatments to a standard treatment that is known to be effective (Garner and Needleman, 1997). Given the physical and psychological toll of eating disorders in children and adolescents, and their chronic course, evidence based treatment research is seriously needed.

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2002 Annual Conference on Adolescent Health  
Hospital for Sick Children  
Toronto, Ontario October 30th 2002



## Adolescence: Not Just for Kids

By Laura Sessions Stepp

Adolescence: You thought it was over at 18. Not so fast. For those who study adolescence as a stage of life, treat it as a disease, sell to it as a market, entertain it with songs and shows that make it seem the greatest time of life, it is growing and growing, providing ever new opportunities for grants, fees, jobs and changing how we think about kids.

The Society for Adolescent Medicine, a physicians' organization, now says on its Web site that it cares for persons "10 to 26 years" of age. A National Academy of Sciences committee, surveying programs for adolescents, discussed extending its review to age 30. (To which one committee member and mother of three gasped, "Oh my God, I hope not.") The MacArthur Foundation has funded a \$3.4 million project called Transitions to Adulthood, which pegs the end of that transition at 34.

The new theories also mean that plenty of Americans who vote, fight wars, buy houses and alcohol and serve in Congress can be branded as adolescents.

Not all of the experts agree with adolescence inflation.

Frank F. Furstenberg Jr., professor of sociology at the University of Pennsylvania, says, "Adolescence has been stretched so much it's becoming an obsolescent term." Jeanne Brooks-Gunn, professor of developmental psychology at Columbia University, says, "It's very disrespectful. Twenty-year-olds aren't teenagers. Cognitively, emotionally, they're like adults."

The young Marines stationed in Afghanistan don't think of themselves as adolescents. "We're suffering in the cold together, defending our country together. We're all men," Lance Cpl. William Isaac Jones, a 20-

year-old Californian, tells a Post foreign correspondent. Adolescents are children, says Lance Cpl. Kevin Ihm, also 20, and "children stay home. That's who we protect."

Powerful lobbies are at work to stretch adolescence as far into the third decade of life as they can.

One of these groups is retail merchandisers. The number of adolescents in the United States is greater today than ever before, 60 million if you start at age 10 and continue to 24, 80 million if you count all the way to 30. Or should we count higher? Once the different ages wore different styles. Now a 60-year-old can wear the casual clothes of a 20-year-old.

Much of today's youth is a pampered population, beneficiaries of a robust economy and parents obsessed with giving them a leg up on everybody else. One amusing measure is this: Adolescents today have received four times as many toys as the generation before them, according to the industry newsletter Retail Merchandiser.

In America's past, teenagers dug coal, stitched boots, plowed the plains and picked cotton, turning their money over to their families. The majority of today's teenagers work as well, but for fewer hours at low-skill jobs, with most of their money going to pay for clothes, cars and entertainment.

Their role has deteriorated, according to historian Thomas Hine, author of "The Rise and Fall of the American Teenager," from contributors to consumers. Marketers expect them to spend roughly \$600 billion next year, dubbing them "Generation Market Clout." They have every reason to want these boomer offspring to stay as young as possible as long as possible.



So, of course, do their boomer parents, themselves obsessed with staying young. If your kid becomes an adult at 18, what does that make you? Grandma? Those who work with, treat and study adolescents have seen their budgets increased substantially by donations from federal agencies, foundations, local and state government and the private sector. They're hoping for more: The Younger Americans Act introduced in Congress this year would fund youth development programs to the tune of almost \$6 billion over five years.

To date, the federal government's efforts have been limited to those under the age of 19. Not so that of doctors.

Thirty-two years ago, a group of pediatricians formed the Society for Adolescent Medicine (SAM); 25 years later, adolescent medicine became a board-certified sub-specialty of pediatrics. A year after that, in 1995, SAM passed a resolution defining adolescent health care as lasting till age 26.

"Our patients were getting older and we wanted to continue to treat them," says SAM President Manuel Schydlower, assistant dean for medical education at Texas Tech University School of Medicine. Schydlower personally cuts two years off the SAM model, however, pegging the end at roughly 24.

Of course, this notion disturbs those who note that the word "adolescent" is often synonymous (wrongly) with irresponsible, even dangerous people; think L.A. slacker Jody in John Singleton's "Baby Boy" or Columbine High School's real-life Eric Harris and Dylan Klebold. It's also synonymous with childishness. To foist such images on young biology researchers or Marine infantrymen makes these people seem at best irrelevant and at worst infantile. It deprives them of the right to be proud of themselves as adults.

The men and women of science have reasons for their conclusions, some more logical than others. The defining of adolescence has a long history filled with the theories of well-meaning thinkers.

Once, it hardly existed at all, at least among the lower classes. Farm children took huge responsibility at early ages and behaved like adults by the time they were in their teens. The "breaker boys" of mine company coal chutes were frequently crippled for life before they'd even be allowed to flip burgers nowadays. Child labor was once such an issue that a Constitutional amendment against it passed Congress, but failed to be ratified by the states.

Then the idea of public high school for the masses took hold. Later, as white-collar jobs began to outnumber blue-collar ones, it became clear that even a high school diploma was not sufficient to secure a well-paying job, and so many adolescents were sent off to college, further delaying their entrance into the adult world.

Educators like to boast that more high school graduates enter college now than ever before, about six out of every 10. But only about half of them complete four years of college, according to Jeffrey Arnett, a psychology professor at the University of Maryland. This means that the majority of young adults are in the workforce. In fact, whole industries and institutions depend on our low-paid young. Fast food service is one. Another is the U. S. military, which has resisted pressure from other Western nations to outlaw the drafting of anyone under the age of 18.

From Camp Rhino in Afghanistan, Marine Cpl. Ralph Clark, 23, of Annapolis says he realized he was an adult in 1996 when Marines evacuated 846 Americans in Albania. "When I first stepped on that land, I realized that was what I had trained to do. For the first time, someone was relying on me to do something to help them."

We have an eccentric American psychologist, G. Stanley Hall, to thank for the popular understanding of adolescence.

At the turn of the last century, drawing on the works of Freud and Darwin, Hall described a period of life between puberty and maturity that was rife with tempestuous behavior brought on by rapid physical growth and a natural inclination to separate from one's



parents. The process was inevitable, in Hall's mind, as was maturity, which arrived once the barbarism was over.

Hall focused entirely on the psyche, especially its negative manifestations. Half a century later, psychoanalyst Erik Erikson both softened and enlarged that focus to include social development. Adolescence is primarily a search for one's identity that ends, Erikson said, when the adolescent finds the right occupation and the right spouse.

Both Hall and Erikson assumed that once you achieved maturity, you left home. Thus the end of adolescence came to mean getting a job, leaving home and having a family, and its endpoint fluctuated not because of any biological changes --boys and girls still reach physical maturity, on average, at about age 18 – but for reasons of the economy and social custom.

This helps explain the current push toward lengthening the time frame. Young adults now marry about four years later than they did in 1970 (at 25 for women, 26.8 for men). More of them are moving in and out of jobs, or going to college, hoping to prepare themselves for a workplace that is constantly changing.

Larger proportions of young, unmarried adults are living at home with their families, even after living independently for a while. According to the U.S. Census Bureau, more than one-half of men ages 18 to 24, and almost one-half of women that age, lived with their parents last year.

More significantly, the proportion of college graduates 24 and younger living with their families is rising, to more than one-third.

These are largely the sons and daughters of the middle class, the group that researchers study most frequently, the group into which their own offspring fit. They defy traditional descriptions but, like earlier generations of youths, have to be labeled so that, in the view of historian Hine, their elders can keep their awesome potential power in check.

But is “adolescent” the ID they should assume? Jon Biegel doesn't think so.

Biegel, 25, graduated from Boston University three years ago with a major in psychology. He didn't know what to do next. So he returned to work as an instructor at Meadowbrook Stables in Chevy Chase, where he had taught riding during high school. He quickly was promoted to office manager, overseeing the accounts of 400 clients. This fall, he left the stables for a job as an insurance and financial agent for Mass Mutual Financial Group.

He's an earnest, hardworking guy who dresses in well-tailored suits, keeps his blond beard carefully trimmed and never travels anywhere without his portfolio, cell phone and Ford Explorer. He bought it used.

He also lives with his parents, rent free. “I'd like to have a stable financial base before moving out,” he says. “I think of ‘child’ when I hear the word ‘adolescent,’ “ he continues. “Do I feel like a kid because I'm living at home? No, I don't. We have different hours. I cook, clean up, try to be responsible.”

By the standards of his parents' generation and the generation before that, Biegel's choice to work and live at home are unusual. But he would feel right at home in present-day Spain, Poland and other industrialized countries where young people tend to live at home even longer than their colleagues in the United States. (In Italy, the average age to leave Mom and Dad is 34 years, according to the William T. Grant Foundation, which supports research on youth issues.)

The Society for Research in Adolescence is forming a group to look at the years 18 to 29 — and the lives of people such as Biegel.

The smaller group's organizer, Jeffrey Arnett, has discarded the term adolescence in favor of “emerging adulthood.” Arnett, the University of Maryland psychology professor, argues that it makes no sense





to call young people in their late teens and twenties adolescents or even late adolescents. Boys and girls between the ages of 10 and 19 “have in common that they live with their parents, are experiencing the physical changes of puberty, are attending secondary school and are part of a school-based peer culture,” he writes in the May 2000 issue of *American Psychologist*. “None of this remains normative after age 18.”

Arnett argues that society needs a better understanding of what it means to be an adolescent and an adult. The MacArthur Foundation’s Transitions to Adulthood project aims to come up with new descriptions.

“We’re about to ask the questions of when adulthood starts, why it starts when it does and how the timing of adulthood has changed,” says sociologist Furstenberg, who will direct the research. Investigators “may conclude that virtually everyone regards themselves as an adult by their mid- or late twenties; nonetheless, many people are continuing to contend with adultlike transitions.”

So why not call them young adults, as we used to? Do we really want them to continue to think of themselves as dependent on their elders?

Another question: Is an adult someone who is capable of being on his own, not necessarily a person who is in fact on his own? “The point should be how an individual functions, not where,” says Michael Kerr, director of the Bowen Center for the Study of the Family in Georgetown.

With housing costs rising faster than food costs and insurance premiums going through the roof (especially for the young), it’s tough to fly solo and, in fact, few young people do. Some seek support from their parents, others from the military service or social services. That doesn’t mean they can’t — or don’t — shoulder some adult responsibilities. If you ask them, assuming responsibility for themselves, and especially for others, is what separates men and women from boys and girls.

Mikesia Jackson was 16 when she took her first steps in that direction. The mother of 1-year-old DeAmonte, she was living with her grandmother, who became seriously ill. She tried moving in with her mother and, in Jackson’s words, “ended up taking care of her, too.” Eventually she got herself declared a ward of the District, which provided her with a social worker and the financial support to move out on her own. Catholic Charities USA agreed to help subsidize her housing.

She found a job as a cashier at a Bread & Chocolate shop in Southeast. There, she befriended the manager, “who taught me the do’s and don’ts of being a good employee.” She was promoted to assistant manager, then moved, at 18, to another company, Mail Boxes Etc., to make more money.

Her first job at Mail Boxes was to keep an eye on employees suspected of theft. She eventually put together a solid case against two workers, who were fired. She became assistant manager. “It got tough at times, because people didn’t want to look at me as a boss,” she remembers. One employee in his thirties asked her boss, “Why should I listen to this little girl?”

At 20, Jackson now makes loans and cashes checks at America’s Cash Express in Oxon Hill. She saves most of what she makes, knowing that in a year she will be too old to qualify for assistance from the city or Catholic Charities.

She likes her work — “It’s the job I’ve been looking for, with benefits, a 401(k) plan” — and has asked to be promoted to district supervisor. She also likes being a mom to DeAmonte, now in kindergarten. She even grooves on PTA meetings.

When she first started going to the meetings, she says, a couple of the other parents, who were older, talked to her like a child. “They’d say things like, ‘Now, dear, once a year we have something we call a fundraiser.’ “

She laughed it off, having learned that adulthood is also about attitude.



“You can’t sit around saying, ‘Oh, my life is so bad.’ You have to get over it because if you don’t you’ll be stuck. As my friend at Catholic Charities says, ‘Shake it off and step up.’ “

“The hardest thing is having no one to depend on day to day. If I have a cold, I can’t go home and lie down. There are dishes to be washed, groceries to be bought, books to be read to my son.

“When you’re an adult, you don’t get a day off. Maybe that could be the definition.”

Staff Writer Carol Morello contributed to this story.

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## How to Choose the Condom That Will Suit Your Needs?

### A Few Suggestions...

**Elizabeth Lacombe** (elacombe@colba.net)

To prevent pregnancy, STD's and AIDS/HIV	A regular lubricated latex condom (Lifestyles, Shields, Trojan, Durex, etc.)
To heighten sensibility and have increased sensations	<p>Thinner condoms (Lifestyles Ultra Sensitive, Shields Dura Thin, Vis-à-vis, Kimono, etc.)</p> <p>Condoms that have a texture - Ridges or Ribs (Lifestyles studded, Shields sensations plus, Ria, Sagami type E, Beyond Seven, etc.)</p> <p>Condoms with an enlarged tip for added stimulation to the glans (Lifestyles Xtra pleasure) or to the frein (Pleasure plus)</p> <p>Contoured condoms (also form-fitting, confort-fit, etc.) for circumcised men (Vis-à-vis, Beyond Seven, Kimono, etc.) and regular condoms for non-circumcised men (Lifestyles, Trojan, Durex, Shields, etc.)</p> <p><i>*Add a few drops of water or silicon-based lubricant in the reservoir at the tip of the condom.</i></p>
For oral sex	Flavored condoms or condoms that are not lubricated.
For anal sex	<p>Regular lubricated latex condoms (Lifestyles, Trojan, Durex, Shields, etc.)</p> <p><i>*Apply a water or silicon-based lubricant on the condom.</i></p>
To diminish or prevent irritation	<p>Lubricated condom</p> <p>Sheerlon condoms (Beyond Seven)</p> <p><i>*Apply a water or silicon-based lubricant on the condom.</i></p>
To prevent allergies	Polyurethane condoms (Durex Avanti)
For larger penises	Large condoms (Lifestyles Large, Durex comfort, Maxx, etc.)
For smaller penises	LifeStyles snug fit (USA), contoured/comfort fit, Beyond Seven (Loblaws)
For a variety of pleasures	Colored condoms (Lifestyles, Shields, Sagami type E, Ria, Beyond Seven, etc.)
For ease of use	Pre-oriented condoms (Lifestyle disks, Durex Gold)



## Healthy Active Living for Children and Youth

**Dr Claire Leblanc, Children's Hospital of Eastern Ontario, Ottawa; and al.  
(Adisory Comittee on Healthy Active Living for Children and Youth)**

Poor lifestyle habits, such as unhealthy eating and physical inactivity, are major contributors to increased adult morbidity and mortality from chronic diseases. Over the past decade there has been an increase in sedentary lifestyle and obesity in children and adolescents, both in North America and worldwide. Physicians need to be aware of the scope of this problem, provide anticipatory guidance to families and promote healthy active living in their practices.  
Key Words: Healthy active living; Lifestyle

A sedentary lifestyle and the consumption of foods that are high in total energy and fat content are factors that are associated with obesity, cardiovascular disease, type 2 diabetes, inadequate bone mineralization and poor mental health. Atherosclerosis, which has been identified as early as the second decade of life, may be the result of five major risk factors: tobacco use, dyslipidemia, hypertension, obesity and inadequate physical activity (1). The objective of this statement is to discuss some of the negative health implications of childhood physical inactivity and inappropriate diet and to outline the benefits of an active, healthy lifestyle.

### Obesity

Obesity is defined as having excess body fat (Table 1) (Figure 1) (2-6). The prevalence of childhood obesity in Canada has tripled from 1981 to 1996 (7). Almost 25% of American youth are considered to be obese, which represents a 20% increase in prevalence over the past decade (8). Obesity during childhood increases the risk of adult obesity. Forty per cent of obese seven-year-olds and 70% of obese adolescents become obese adults (9). Genetic heritability accounts for 25% to 40% of juvenile obesity, leaving

considerable influence on body weight from environmental factors (10).

The cause of obesity is a chronically positive energy balance (ie, energy intake exceeds energy expenditure). Recent studies have shown that obese children and adolescents ingest about 20% more energy than normal weight controls (11,12). While studies worldwide agree that obese children and youth have low levels of physical activity, data are less consistent regarding energy expenditure. By using the 'gold standard' doubly-labelled water technique, studies have suggested that 24-h energy expenditure is higher, the same or lower in obese children than in nonobese children (7,13,14).

Inappropriate nutrition may play an important role in childhood obesity. In a 1998 Canadian survey (15) of the eating habits of grade 6 students, approximately 73% said that they ate fruit at least once a day, while 45% said that they had at least one serving of vegetables each day. About 15% of these students ate french fries or potato chips daily and 24% ate candy or chocolate bars daily. More than 60% of American youth eat too many fatty foods, and less than 20% eat the recommended five or more servings of fruits and vegetables per day (16).

The consumption of fast foods has been associated with excess weight gain. This may be related to the higher energy and fat content of most of these foods. Fast-food restaurants also offer increasingly larger portions, which encourages the ingestion of greater amounts (16).

While the incidence of juvenile obesity has increased over the past decade, there has been a decrease in overall fat consumption by the general population (17). This suggests that physical inactivity also plays an important role in the development of obesity.



Approximately 28% of Canadians 12 to 14 years old and 66% of Canadian youth aged 15 to 19 years are deemed to be physically inactive (18). In addition, only 46% of Canadian children between the ages of five and 17 years satisfy the energy expenditure guideline for optimal health and development (8 kcal/kg/day), recommended by Sallis in an American consensus statement (19). A higher proportion of girls are inactive at all ages, and a significant decline in physical activity, which is greater in girls, occurs during adolescence. At five to 12 years of age, 30% of girls are physically active compared with 50% of boys, and at 13 to 17 years of age these statistics drop to 25% and 40%, respectively (19).

One of the traditional approaches to addressing physical inactivity has been to focus on individual awareness of the benefits of and opportunities for leisure time physical activity to affect change in behaviour. However, recent research has demonstrated the importance of social, physical and cultural environments in determining the extent to which people are able to be active in all facets of daily life, including work, education, family life and leisure. Modifying the aspects of social, physical and cultural environments that pose barriers to physical activity, and enhancing those which are supportive will make active living an easier choice for Canadians. Creating active school communities is an essential component of a healthy active lifestyle. An active school community is one in which all citizens, including teachers, students, parents, administrators and community leaders, work together to create physical and social environments that support active, healthy lifestyles (20).

In addition to a lack of physical activity, there has been an increase in sedentary behaviour such as watching television and using video games and computers. In the fall of 2000, Canadian children watched an average of 15.5 h of television a week, while youth aged 12 to 17 years watched an average of 14.1 h weekly (21). Ninety-eight per cent of American households in 1998 had a television, and the number of households with two or more televisions has increased dramatically (22). American children aged six to 11 years watch an average of 23 h of television per week (23). Television watching is

associated strongly with an increased risk in obesity because it involves both a decrease in energy expenditure and an increase in energy intake by excessively eating high fat and high energy-containing snack foods (24).

Video and computer games are becoming more popular for children and youth. In 2000, 4.7 million Canadian households were connected to the Internet, and 71% of households reported that at least one person in the home regularly used the Internet at least seven times weekly. This number was up from 65% in 1999 (25). During the first three months of 2000, 11 million personal computers were delivered to American stores for retail sale, which represented a 14.5% increase from the previous year (26). It is difficult to determine whether the time children spend on computers replaces other sedentary activities or further reduces more active pursuits.

Obese children are at an increased risk for hypertriglyceridemia, hypercholesterolemia, hyperinsulinemia, type 2 diabetes mellitus, hypertension, respiratory disorders, orthopedic problems and psychological problems during their youth. Because juvenile obesity frequently tracks into adulthood, it could lead to higher rates of morbidity and mortality from cardiovascular disease, diabetes, arthritis-related disability and some cancers. Thus, preventing and treating obesity in childhood and adolescence is a critical public health issue and an important determinant of health.

To date, there are limited quality data on the effectiveness of childhood obesity prevention programs. A systematic review of the recent literature found only seven studies that used interventions such as dietary education, physical activity programs and reduction of sedentary activity. These studies were diverse in design, quality, target population and outcome measures, making it difficult to reach generalizable conclusions (27). A good prevention program is one that encourages family lifestyle changes by promoting a healthy, satisfying diet, protecting children against advertisements for nonhealthy, fatty foods and large format servings, and decreasing sedentary behaviours (17). There is



an urgent need for well-designed studies that examine a range of interventions so that sound preventive programs can be generated.

## Hypertension

Nearly three million American youths have high blood pressure (28). Obese children are especially prone to hypertension. Children aged six to 11 years with triceps skin-fold thickness at or above the 85th percentile were 2.6 and 1.6 times more likely than their leaner peers to have elevated systolic and diastolic blood pressures, respectively (29). Juvenile onset hypertension tracks into adulthood, making it a major public health concern (30).

Preventing and treating childhood-onset hypertension is critical. When continued over eight months or more, aerobic training (ie, running) has been shown to reduce systolic and diastolic blood pressure in adolescents with hypertension (31). Likewise, resistance training following aerobic training can further decrease blood pressure, even though blood pressure increases during acute bouts of resistance exercise (weight lifting for example) (32). Physicians should regularly monitor blood pressure at yearly check-ups and encourage youth to adopt active, healthy lifestyles, and to avoid high fat foods and tobacco use to prevent hypertension in childhood.

## Type 2 Diabetes

Type 2 diabetes affects more than 1.8 million Canadian adults and may result in the accelerated development of cardiovascular disease, end stage renal failure, loss of vision and limb amputations (33). The prevalence of type 2 diabetes is increasing in youth, with up to 45% of children with newly diagnosed diabetes having nonimmune-mediated disease (34). A family history of type 2 diabetes is typical and obesity is a hallmark, with up to 85% of affected children overweight or obese at diagnosis. An increased proportion of Canadian Aboriginals, African-Americans, American Indians and Asians have type 2 diabetes (34,35). The usual age of onset is 12 to 14

years, which coincides with relative insulin resistance known to occur in puberty. The rise in obesity and decrease in physical activity levels in this age group also contribute to insulin resistance and may be significant risk factors for the development of diabetes (36). The treatment of type 2 diabetes in children requires a comprehensive understanding of the cultural, linguistic, geographic, economic and religious background of the family, as well as an understanding of the family's life experience with complications of the disease. Modification of lifestyle, with attention to proper nutrition and physical activity, must be the foundation of all treatment programs. Scientific evaluation of various pharmacological treatments is limited (37).

## Osteoporosis

Osteoporosis is a major health problem in Canada that causes fractures, disability, pain and deformity in the elderly population. It affects one in four women and one in eight men over 50 years of age (38). Peak bone mineral mass is usually achieved by the third decade of life, and the maximum bone acquired during the first 20 years of life is an important determinant of final bone mass and bone health in later years (39). Before puberty, bone mineral density in boys and girls is similar; however, adolescent females achieve peak bone mass at 11 to 14 years of age and it rapidly declines thereafter, and adolescent males continue to increase bone mass until 15 to 16 years of age and then follow a slower subsequent decline (40). Central hormonal factors such as estrogen, appropriate nutrition and local mechanical forces positively affect bone mass during growth and development. Weight bearing exercises during puberty may improve bone mineral content and result in a greater peak bone mass, which may delay the age at which the osteoporotic fracture limit is reached (41). Prolonged periods of inactivity during youth result in higher osteoclastic activity and bone atrophy, which may have a serious negative impact on peak bone mass. Sedentary lifestyles in childhood may, therefore, contribute to increasing rates of osteoporosis and its complications later in life. To improve good bone health, physicians should recommend appropriate nutrition, including an age-appropriate vitamin D and



calcium intake in accordance with Canada's Food Guide (Figure 2), regular weight-bearing physical activity and avoidance of tobacco use.

## Mental Health

In 1996-97, 113,000 Canadians 12 to 17 years of age were given the diagnosis of depression lasting an average of 4.5 weeks (42). Body image and 'fitting in' with perceived norms of weight, height and sexual development are key concerns for adolescents. Juvenile obesity is associated with poor self-esteem, depression and social discrimination (43).

Regular physical activity is beneficial psychologically for all youths, regardless of weight. It is associated positively with self-esteem and self-concept, and associated negatively with anxiety and depression (44). Some studies have shown a reduction in the proportion of youth smoking cigarettes, drinking alcohol and taking illicit drugs when they are involved in regular physical activities (45-47).

## School Performance

In 1999, Canada's high school dropout rate was 12%, down 33% from an estimated 18% in 1991 (48). Students leaving before graduation were more likely to report a lack of enjoyment with school, dissatisfaction with their courses and teachers, and nonparticipation in extracurricular activities.

School physical education programs and extracurricular physical activities could play a significant role in improving students' attitudes, discipline and behaviours (49). Although information on the number of children in Canada taking regular physical education classes is incomplete, it is estimated that most schools offer half of the recommended provincial requirement, and less than 4% offer quality daily physical education programs. Unfortunately, in 2001, only 33% of all schools in Canada had formal physical education classes, and programming varied from school to school (Guy Tanguay, personal communication). Formal physical

education is optional after grade nine in Canada. In recent years, parents and the business community have pressured educators to adjust the curriculum to prepare students for the workforce.

Some claim that reducing the number of hours spent on physical activity will increase academic achievement. Yet, there is no evidence that regular physical activity hinders educational performance and there is modest evidence that shows that it actually enhances academic achievement (50). The 1996 United States Surgeon General's report recommend 1 h or more of aerobic physical activity and exercise on most days (51).

Physicians have a vital role to play in the reinstatement of regular quality daily physical education in all schools and in all age groups. Children and youth should be provided with safe school recreation facilities that are stocked with appropriate equipment, ensuring exposure to a wide range of physical activities, especially those encouraging lifestyle changes. School-based facilities are not only important for increasing physical activity during school hours, they are an essential means to allow all children access to cost effective community recreation programs after school.

## Recommendations

Physicians and health care professionals are encouraged to promote healthy active living for all family members by:

- Inquiring about nutritional intake and physical activity levels of all children and youth at regular health care visits.
- Encouraging children and adolescents to increase the time that they spend on physical activities and sports by at least 30 min/day, with at least 10 min involving vigorous activities. Vigorous activities are those that increase the heart rate and respiratory rate and increase body temperature (Table 2) (51). To get added benefit, they should review their activity patterns every month and progressively increase their efforts. Once the first goal of increasing their current activities by at least 30 min is achieved,



the goals should be reset to involve more time and to be more challenging. For example, if children or youth are inactive, they should begin with at least 20 min of moderate physical activity plus 10 min of vigorous physical activity per day for the first month. They should then increase the moderate component by 10 min/day and the vigorous component by 5 min/day each month to achieve an exercise protocol of at least 90 min/day of total physical activity. Events should include a wide variety of weight-bearing activities as part of sports, recreation, transportation, chores, work, planned exercise and school-based physical education classes. Activities should be fun and unstructured for best compliance.

- Counselling families to reduce sedentary activities by limiting exposure to television and video and/or computer games. An achievable first step is to reduce these activities by 30 min/day, and subsequently decreasing sedentary activities by 5 min/month, allowing up to 90 min/day for these activities,
- Encouraging parents to be positive role models for their children and incorporate physical activities that family members of all ages can do together. Families should take part in activities safely by wearing appropriate protective equipment (bicycle helmets, life jackets, etc).
- Advising parents to enrol their children in age- and developmentally appropriate sports and recreational activities.
- Encouraging youth to be involved in the promotion of physical activities for their peers.
  
- Promoting and using Canada's Physical Activity Guide ([www.paguide.com](http://www.paguide.com)) for healthy active living for children and youth as a tool to encourage children and youth to be more active.

Physicians and health care professionals should advocate for:

- Initiatives to serve healthy foods and eliminate the sale of high carbohydrate soft drinks and high fat

or sugar snacks in schools. Alternate funding for healthier food choices should be sought.

- Policies that reduce the sale of over-sized fast foods.
- Initiatives that provide children and youth with quality daily physical education classes (kindergarten to grade 12) by qualified, trained educators and the use of school-based sports facilities during after-school hours.
- Comprehensive community sport and recreation programs in which the use of community and school facilities after hours may make more recreation programs available to all children at reasonable costs. Access to these facilities should be equally available to both sexes.
- The construction of safe recreational facilities, playgrounds, parks, bike paths, sidewalks and roads.
- The reinstatement of compulsory physical education throughout all age groups in all schools.
- The appropriate allocation of funding for quality research in the prevention of childhood obesity.

**ACKNOWLEDGEMENT:** Financial assistance for the development of this position statement was provided by Health Canada.





**Table 1**  
**Definitions of obesity**

Because the measurement of body fat is difficult, surrogate definitions based on weight-for-height relationships have been developed. The most practical definition of obesity is based on actual weight expressed as a percentage of ideal weight for height, age and sex. This involves fitting the child or youth's height on a standard growth curve. The ideal weight is then derived as the same percentile as that for height. Actual weight is expressed as a percentage of the ideal weight for age, height and sex (2). For example (Figure 1) an eight-year-old girl measures 131.5 cm (75th percentile) and weighs 40 kg (above 95th percentile). Her ideal weight would be derived at 29 kg (75th percentile). Then one can calculate her weight-stature index, which is her actual weight (AW) in kilograms divided by her ideal weight (IW) in kilograms, multiplied by 100 (AW/IW X 100). A normal weight-stature index ranges from 90% to 100%, overweight is from 110% to 120% and obesity is more than 120%.

While this same approach can be used in adults, body mass index (BMI) has gained popularity. BMI is defined as the weight in kilograms divided by the height in metres squared (kg/m<sup>2</sup>). The United States Centers for Disease Control and Prevention have recently developed BMI charts for children and youth (3). The normal ranges for BMI in adults are constant values, with obesity defined as the 85th percentile and superobesity as above the 95th percentile.

These same definitions are also used for the range of triceps skin fold percentiles (4). Even though BMI values are lower during childhood and gradually increase to reach adult values around 18 years of age, in practical terms the same percentile ranges of the 85th percentile to define obesity and above the 95th percentile to define superobesity have been applied successfully (5,6).

**Table 2. Energy costs of activities of daily living (expressed in relationship to basal metabolic rate [BMR])**

Sleeping	1.0
Lying awake	1.2
Sitting quietly	1.2
Standing quietly	1.4
Walking slowly	2.8
Walking at normal pace	3.2
Walking uphill fast	7.5
<b>Recreation</b>	
light (billards, baseball, golf, sailing)	2.2 - 4.4
moderate (dancing, swimming tennis)	4.4 - 6.6
heavy (soccer, jogging, rowing)	6.6 +

**BMR values for children and youth (kcal/min)**

<b>Age group (years)</b>	<b>Girls</b>	<b>Boys</b>
5 - 10	0.7	0.7
10 - 14	0.89	0.95
14 - 18	0.98	1.2

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Reproduced from: *Paediatrics & Child Health* Vol 7 No 5 May/June 2002

2002 Annual Conference on Adolescent Health  
Hospital for Sick Children  
Toronto, Ontario October 30th 2002



# Healthy Active Living for Children and Youth

## A Note from the Doctor: Advice for Parents and Caregivers

**Dr Claire Leblanc, Children's Hospital of Eastern Ontario, Ottawa; and al.  
(Adisory Comittee on Healthy Active Living for Children and Youth)**

Healthy active living means being physically active and eating well every day.

Did you know that more than half of Canadian children are not active enough for optimal growth and development? That means they are not as healthy as they could be.

As well, 25% of children are considered to be obese, and that number is on the rise. The main reasons are as follows.

Lack of physical activity. Many children and youth are not getting enough physical activity or exercise. Poor eating habits. Many kids eat too much convenience or fast food, which are high in fat and calories.

Families can play an important role in promoting healthy active living. Here are some suggestions.

### **Get active**

Get the whole family involved in regular physical activity and healthy eating. It will be easier if everyone's in it together. If you focus on just one child, they may feel like they're being punished.

If your children are not active, increase the time that they spend on physical activities and sports by at least 30 minutes a day. They should spend at least 10 minutes on 'vigorous activity', which makes their hearts beat faster, makes them breathe harder and makes their bodies feel warm.

Make active living part of your child's daily routine. It's easier and more realistic than relying only on scheduled, organized activities:

- Encourage your child to take part in activities that involve moving, not sitting. Set limits on how much time they spend watching television,
- playing video games, and surfing the Internet - no more than one hour a day.
- Organized sports alone (such as a soccer team or a hockey league) aren't enough to keep children and youth healthy. Encourage them to also discover activities they can do and enjoy every day, such as walking or cycling to a friend's house or skipping rope.
- If you drive your children to school, try walking instead, or organize a walking club with the neighbours.
- Encourage your children to take the stairs instead of the escalator or elevator.
- Get your child involved in activities around the house: carrying the groceries, raking leaves, or shovelling snow.

Be sure activities are safe. Children and youth should wear protective equipment for activities like cycling, skating, skateboarding, soccer and other physical activities.

### **Eat well**

Limit the amount of high-fat, high-calorie foods you bring into your home. It's easier for children to make healthy choices if there's no junk food around to



tempt them. If you do bring home foods like chips or cookies, buy smaller packages.

Help your children choose foods that are high in cereal fibre - like bran, wheat and rye. These include dry cereal or cereal bars, which are naturally filling and low in calories.

Provide your children with healthy snacks. Instead of high-fat foods like chips and donuts, offer fruit and raw vegetables, like celery and carrots.

Encourage your child to drink water instead of juice. Even juice that is labelled “unsweetened” can have as many calories as soft drinks. Set a limit on juice and soft drinks. Aim for no more than 120 mL to 240 mL (4 to 8 oz) a day, depending on your child’s size and weight.

If your children eat at fast food restaurants, help them resist the temptation to ‘supersize’ their meals. Stick with regular portions, and don’t go as often.

Help your child or teen accept their bodies. Instead of dieting, encourage them to get active. Dieting leads to a ‘yo-yo’ cycle of weight gain and weight loss that is not healthy.

If your child is overweight, talk to your doctor about setting realistic weight-loss goals, and about developing a plan to reach those goals. Be a role model!

Your children will learn most about healthy active living from you.

#### FOR MORE INFORMATION

Canada’s Physical Activity Guide to Healthy Active Living, Health Canada: <[www.paguide.com](http://www.paguide.com)> or 1-888-334-9769.

Caring for Kids: A range of resources on the health and well-being of children and youth, developed by the Canadian Paediatric Society: <[www.caringforkids.cps.ca](http://www.caringforkids.cps.ca)>.

Go for Green: Ideas for healthy, outdoor physical activities that protect the environment. National programs include “Active & Safe Routes to School” and “International Walk to School Day”: <[www.goforgreen.ca](http://www.goforgreen.ca)> or 1-888-822-2848.

Reproduced from: Paediatrics & Child Health Vol 7 No 5 May/June 2002

#### Being active...

- Builds strong bones and strengthens muscles. Helps children stay flexible.
- Helps children reach and maintain a healthy weight. Promotes good posture and balance.
- Improves children’s fitness levels. Helps children meet new friends. Strengthens the heart.
- Helps children feel better about their bodies. Helps children relax.
- Enhances healthy growth and development.



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## Publications

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### Toronto Men's Health Network (TMHN)

#### Mission

The Toronto Men's Health Network is a non-profit, voluntary organization dedicated to improving the health and well-being of men and boys.

#### Vision

A society where males of all ages and backgrounds give priority to building healthy lives, families and communities.

THMN is working on developing a print newsletter to compliment our website and e-bulletin.

The newsletter will feature user friendly and practical health related articles on topics such as nutrition, relationships, exercise, fatherhood, environment,

sexuality, careers, spirituality along with information about health resources available in the community.

The website features a panel to make men aware of their health, different presentation of the problem ranging from causes to questions. Another panel presents an Info Centre which helps men by giving various information and resources. Finally, a third panel named Father's Project help men with counseling and guidelines on the role of the father.

To subscribe to email bulletin please contact:

[www.menshealthnetwork.ca](http://www.menshealthnetwork.ca)

[info@menshealthnetwork.ca](mailto:info@menshealthnetwork.ca)

Info-Line: 416-410-9670

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### National Strategy on Crime Prevention

The government of Canada's National Strategy on Community Safety and Crime Prevention is pleased to provide you with a summary of this sixth edition of *Prevention*. This edition focuses on various crime prevention initiatives across Canada.

You can download a PDF or HTML version of this newsletter through our Website ([\[prevention.org\]\(http://prevention.org\)\) under \*Publications & Information\*. Please let us know if you would like to receive a copy by mail.](http://www.crime-</a></p></div><div data-bbox=)

Email : [ncpc@crime-prevention.org](mailto:ncpc@crime-prevention.org)

Fax: (613) 941-7863



## Global Youth Service Day (GYSD)

Global Youth Service Day (GYSD) is an annual global event led by Youth Service America with the Global Youth Action Network as its key partner, together with a consortium of 34 International Organizations and more than 150 National Coordinating Committees. The goals of GYSD are to:

- Highlight the ways that young people improve their communities through service 365 days a year
- Recruit the next generation of volunteers and
- Promote the benefits of youth service around the world

The Global Youth Service Day 2002 Final Report is now available in English for download on the web

site. Check it out to find out what happened all around the world perhaps the largest worldwide celebration of young people making a difference.

The final report is available here:

<http://www.gysd.net/doc/eng/GYSD02FinalReport.pdf>

For more information, please contact:

[Global Youth Action Network](#)

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## Contraception Online

The [Baylor College of Medicine](#) offer this online educational resource for health care providers and health educators seeking the latest information on reproductive health, family planning, and contraception. The goal at Contraception Online is to explore important issues related to reproductive health in a scientific and objective manner in order to provide up-to-date and practical educational tools and materials. The resources at Contraception Online can be used for self-study or to educate others about reproduction and a range of contraceptive methods.

The following educational resources are available on the website:

**The Slide Library:** View slide talk on contraception for special populations, the non-contraceptive benefits of oral contraceptives, and much more.

**The Contraception Report:** Access this newsletter for educational material on reproductive health and family planning, including information specifically designed for patients. Continuing Medical Education credit is available for activities related to the most recent issues of The Contraception Report. You can also download the report at the following address: [www.contraceptiononline.org/contrareport/issue.cfm](http://www.contraceptiononline.org/contrareport/issue.cfm)

**Online Meeting:** View critical presentations given by experts in reproductive health and family planning, read the abstracts. Free CME credit is available for participating in these Online Meeting activities.

**Patient Information :** Link directly to the Patient Update sections of The Contraception Report for health education materials ready for distribution.

**Website:** [www.contraceptiononline.org](http://www.contraceptiononline.org)



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