

# Children of Alcoholics

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## Overview

The topic, children of alcoholics (COA), has not been previously addressed by the Canadian Task Force on the Periodic Health Examination. However, related topics, such as fetal alcohol syndrome and problem drinking, have been covered elsewhere in this book. The focus of this report is children aged 0 to 18 years, who live with an alcoholic, or alcohol-abusing parent. Clinical and research evidence worldwide clearly shows that COA are an at-risk population for diminished intellectual capacity and development, increased emotional problems, and a wide range of psychological and behavioral disorders. As well as being at risk, these children are also likely to experience long-term adverse consequences. Increased risk status comes from three sources: 1) genetic influences; 2) teratogenic factors during pregnancy; 3) environmental conditions related to the upbringing of the child by addicted parents. Several screening tests have been derived to identify children of alcoholics of which the Children of Alcoholics Screening Test (CAST) is the most frequently used child self-completed questionnaire. Services to COA are nearly non-existent, being limited to referral of children to individual or group therapy in Al-Atot or Al-Ateen. Although physicians have a low recognition rate of alcohol abuse in parents of hospitalized children, there is no evidence to show that routine screening of non-complainant offspring of alcoholic parents would improve the detection rate of various morbidities, or management of these children. However, physicians should be sensitive to the possibility of alcohol-related stressors in offspring of alcoholic, or alcohol-abusing parents, particularly in high-risk groups, such as children hospitalized for injury. Additionally, physicians are encouraged to offer support to COA and to assist COA to recognise that they have a right to seek assistance (C Recommendation). A separate chapter has also been prepared dealing with problem drinking (Chapter 42).

## Burden of Suffering

Although no large epidemiological studies have been conducted to identify the prevalence of children of alcoholics in Canada, there are indications that this is a sizable group. Russell and coworkers<sup><1></sup> extrapolating data from the U.S. 1979 Drinking Practice Study<sup><2></sup> estimated that 1 out of 8 children in the United States lives in an alcoholic home. Using this ratio with 1991 Canadian population statistics<sup><3></sup> for children aged 0-19 years, it can be estimated that close to one million (approximately 945,150) children lived in an alcoholic home in Canada in 1991. This figure represents approximately 12% of children in any age group. Epidemiological evidence from other countries shows similar prevalence rates.<sup><4></sup>

Definitions of parental alcoholism have differed between studies and over time. Definitions ranged from self-reported family histories of heavy drinking or alcohol-dependency in the natural parent or grandparent in earlier studies<sup><4,5></sup> to parents who were described as "problem drinkers"<sup><6,7></sup> or "recovering alcoholics"<sup><8,9></sup> or "recovering-diagnosed-alcoholics",<sup><10,11></sup> or those who met the criteria systematically defining alcohol abuse or dependence in later studies. The strategy most commonly used to determine parental alcohol status was the DSM-III alcohol abuse or dependence criteria.<sup><12,13,14></sup> Questionnaires such as the Michigan Alcohol Screening Test,<sup><15,16,17></sup> or the four-question CAGE query<sup><18,19,20></sup> were also used to assess parental lifetime occurrence of impairments secondary to alcohol use, and alcohol dependence symptoms.

Systematic investigations of the transmission of alcoholism in family,<21> twin,<22> adoption<23> and half-sibling<24> studies have concluded that, compared with the general population, alcoholism in a biological parent is a consistent predictor of alcoholism in the offspring. A meta-analysis of the relationship between the sex-of-parent and sex-of-offspring on the transmission of alcoholism, indicates that across family studies, paternal alcoholism is associated with increased rates of alcoholism in both sons and daughters, whereas maternal alcoholism is solely associated with increased rates of alcoholism among daughters.<25> Biological sons and daughters of alcoholics are four times more likely than children of nonalcoholics to become alcoholics, and daughters of alcoholics are more likely to marry alcoholic men.<26>

The fetal effects of alcohol during pregnancy are well documented, particularly at the severe end of the syndrome in terms of the cluster of signs and symptoms known as the Fetal Alcohol Syndrome (FAS). There is also evidence that alcohol can result in more subtle changes such as mild forms of developmental delay and mental retardation.<27> More information on FAS is provided in Chapter 5.

In general, both cross-sectional and prospective longitudinal studies point toward a complex interaction between parental alcoholism and familial environment in increasing the vulnerability for psychopathology in the offspring. The home environments of COA with one alcoholic parent show there is diminished global functioning when compared with homes of children with neither parent alcoholic.<6> A comparison of the home environments of COA with one or more DSM-III diagnoses and those without psychiatric diagnoses shows that the homes of the "disturbed children" are characterised by greater exposure to the effects of parental drinking, more parent-child conflict and less parent-child interaction than the homes of the children who received no diagnoses.<6> The child-rearing practices of alcoholic fathers, compared to those of non-alcoholic fathers, are more likely to be rejecting, harsh and neglecting.<7> Living in a family with one active alcoholic parent seems to increase the risk of children being abused or neglected.<28> COA report a greater frequency of family violence than children from control families.<29> In a large U.S. survey,<12> children of mothers categorized as problem drinkers had a 2.1-fold relative risk (95% confidence interval (CI): 1.3-3.5) of serious injury (injuries resulting in hospitalization, surgical treatment, missed school, one-half day or more in bed) when compared with children of mothers who were non-drinkers. Children of two parents who were problem drinkers compared with children of nondrinkers had a 2.7-fold relative risk of serious injury (95% CI: 0.8-8.6).

Growing up in a household with alcoholic parents is more likely to produce lower self-esteem, greater dysphoria and more anxiety in adulthood.<30> Rates of emotional problems, especially anxiety, depression and nightmares are doubled in children of relapsed alcoholics as compared to children of non-alcoholics or to children of recovered alcoholics.<5> COA are more likely to describe their childhood as unhappy,<8> and to have a greater level of depressive affect, when compared to the general population.<31>

Parental alcoholism, in addition to creating an adverse family environment, increases the risk for maladjustments as measured by scores on the Child Behaviour Checklist (CBCL).<13> Children of alcoholic parents scored significantly higher on the total behaviour problem scale, as well as on both the internalizing and externalizing scales of the CBCL. They also scored significantly higher on the somatic complaints scale. In a comparison of COA and children of non-alcoholics,<16> the former reported more alcohol and drug problems, stronger expectancies for positive reinforcement from alcohol, higher levels of behavioral undercontrol, more neuroticism and more psychiatric distress. They also showed lower academic achievement and lower verbal ability than controls. Greater risk for overt child psychopathology was observed when both parental disorder and adverse family environment were present.

Preliminary studies have found significantly lower IQ scores in COA, when compared to children of non-alcoholic parents.<32> One longitudinal study on the island of Kauai, Hawaii,<33> followed 49 children of alcoholic parents. The children were reared in chronic poverty from birth to 18 years. Fifty-nine percent of the offspring of alcoholics appeared to cope well and had not developed serious problems by the age of 18 years. However 41% of the children had coping problems, and scored significantly lower on verbal abilities as well as on reading and writing than the rest of the group.

A more recent study found no difference in cognitive functioning between children from alcoholic and non-alcoholic families.<34> Another study comparing children of male alcoholics with control children found that the former group was not compromised academically, and did not show more conduct problems. However, in this study daughters of alcoholics (but not the sons) showed more variability than controls in school attendance.<35>

Most research indicates a relationship between parental alcoholism and conduct problems in their children.<36> This appears to hold for both diagnosed conduct disorder as well as for specific conduct problems such as lying, stealing, fighting and truancy.<32> One recent prospective longitudinal study collected data from a consecutive sample of women from the general population visiting two mental health clinics in Sweden during the course of one year.<37> Of 497 liveborn children, 54 were born into families with an alcoholic parent. The study examined health, growth, mental development and psychopathology of children from before birth until school age. The children's physical health was tracked, and they were evaluated using the Griffiths Development Scales. By age 4 years, the children of alcoholic parents had a higher risk of pre- and post-natal death, poorer mental development and more symptoms of an overt psychiatric nature (DSM-III) than other children. However, delays in physical development observed during the infant years disappeared by age 4.

Not all children of alcoholics are equally vulnerable. Despite the risk to COA, at least 60% of COA do not themselves become alcoholic or psychiatrically ill. While it is true that this implies that not all COA are equally vulnerable, it may simply be that the unaffected subgroup has not inherited the genes conferring susceptibility from their parents. Present methods do not permit a distinction between biological and psychosocial vulnerabilities. One recent study<14> found that when factors such as low socioeconomic status and familial co-morbidity were controlled for, children from high-risk families with a multi-generational history of alcoholism or alcohol abuse, had similar rates of childhood disorders, when contrasted with low-risk children from community control families. However this study considered only childhood psychiatric disorders, and provided no information about the future risk of adult psychiatric disorders in these children. A longitudinal study<33> compared the characteristics of resilient children of alcoholics (59% of the sample) with the offspring who developed adjustment problems. Resilient children were found to have a responsible attitude, positive self-concept, adequate communication skills, at least average IQ, and more internalized locus of control. Another study examined the protective effects of positive family functioning in young adult children of alcoholic parents.<38> It found that a biological vulnerability, that is, being the offspring of an alcohol-dependent parent was not sufficient or necessary for children of alcoholics to develop alcohol dependency as young adults, although there was an increased risk. There appeared to be strong protective effects of positive family relationships on the potential negative effects of a family history of alcoholism.

## Maneuver

Research on COA is of variable quality, but has mainly been criticized for missing pertinent information. Clear, consistent definitions of criteria to evaluate parental alcohol use are lacking and thus the strategies used to determine parental alcohol status varies among studies and are not necessarily comparable. Length of exposure of the child to the alcoholic parent and the differential

impact of an alcoholic parent at various stages of the child's development are generally not considered. The role of gender needs further research; paternal alcoholism is associated with increased rates of alcoholism in both sons and daughters of alcoholics.<25> Often, confounding effects of factors other than parental alcoholism, such as parental divorce and subsequent family breakup, are not taken into account. Further, the focus of intervention programs has not been clearly defined and includes at least two conceptual approaches: 1) preventing COA from developing into alcoholics; and 2) prevention of the development of psychosocial problems in such children. Due to lack of comparability of programs, populations and outcome measures as well as the lack of control for confounding, in most cases there is insufficient evidence upon which to evaluate interventions for COAs.

### ***Screening Tests***

Although the family history method appears to be the most commonly used strategy for identifying COA, a number of instruments have been developed to assist in efficiently screening large numbers of subjects for a history of alcoholism in parents and other relatives. Some of these instruments represent adaptations of instruments originally developed for direct screening of alcoholism (eg. the MAST; see Chapter 42 on Problem Drinking) and are directed at adults. One test, the Children of Alcoholics Screening Test (CAST)<18> is directed at the impact of a parent's drinking on the child. The CAST is a 30-item inventory devised to identify children and adolescents who are living with at least one alcoholic parent. It measures children's feelings, attitudes, perceptions and experiences related to their parents' drinking behaviour. Positive responses to 6 or more of the questions have been found to significantly discriminate COA from a control group of children. It reliably identified 100% of the children of both clinically diagnosed and self-reported alcoholics.<18> However 23% of the children with no known history of parental alcoholism also scored above the cut-point. The drinking behaviour of the parents of children in the control group was not assessed, so there was no way to determine the true rate of alcoholism in parents of the control group. The reliability and validity of the CAST has been studied in adolescent,<19> adult<20> and psychiatric populations.<17> It has been found to discriminate between the offspring of alcoholic parents and the offspring of non-alcoholic parents. High CAST scores have been found to be significantly related to low family cohesion, and high family conflict, and low overall family support.<39> Children 8 years or younger need to have each CAST item read and interpreted. Children 9 years and older can usually complete the test with little difficulty.

Results from a study using the CAST with adolescent offspring of diagnosed alcoholic fathers,<19> show that CAST scores correlated positively with the Life Situations Check suggesting that the CAST is related to the occurrence of alcohol-related stressors within the family. Adult subjects who reported that one or more of their parents received treatment for alcoholism scored significantly higher on the CAST as compared to other subjects.<20> It has been suggested that a short form of the CAST (see [Table 1](#)) might be more appropriate as a screening instrument for clinical purposes.<17> Although the CAST appears to be a promising screening instrument, there is a need for more psychometric research and evaluation on both the full and the shortened CAST, especially since one study found that children's reports of parental drinking had little validity.<40>

The Children of Alcoholics Life-Events Schedule (COALES)<41> is another self-completed test directed at children. It is a stress scale for COA designed to determine the amount of parental drinking-related- stress which a child experiences. The rationale is that stress may be a factor that discriminates children who are most at risk from those who are resilient. A study<41> using this test showed that COA reported higher levels of negative events, and lower levels of positive events than did their peers from non-alcoholic homes. Scores on the positive and negative event subscales were significantly correlated with the children's scores on measures of anxiety and depression.

In contrast to using a multi-item self-report questionnaire for diagnosing a family history of

alcoholism, several investigators have justified the use of single item measures to validly determine if an individual is a COA. Two such items are "Do you consider that either of your parents ever had a drinking problem?"<sup><42></sup>, or "Do you consider that either of your parents may have, or may have had, an alcohol abuse problem?"<sup><43></sup> Although for research purposes such a subjective assessment is clearly inadequate, combined with a family history, these two assessment items provide a brief and cost-effective screening method for the general practitioner in an office setting.

## **Effectiveness of Prevention and Treatment**

Physicians are in a unique position to identify and respond to substance abuse in their patients' families, but have been found to be slow to identify and respond to this problem. In a study of the detection of alcoholism in families of hospitalized children, physicians were found to have a low recognition rate of substance abuse in their patients' families.<sup><44></sup> It was suggested that alcohol problems are likely to go unnoticed in the absence of a conscious screening effort. In another study,<sup><15></sup> only 34% of physicians reported taking a family substance abuse history on their pediatric patients, compared with 62% who reported taking personal alcohol/drug use history from their adolescent patients. Physicians also reported little or no responsibility for substance abuse referrals of their patients' family members. However, when the identified patient was an adolescent, the number of referrals increased.

Physicians who treat both parents and children need to be aware of the potential role played by parental drinking. Data from a U.S. study of parental alcohol use, problem drinking and children's injuries,<sup><12></sup> suggest that the primary prevention of children's injuries might be enhanced if physicians included questions about parental alcohol use in the social history. It found that children of women who are problem drinkers have an elevated injury risk, and children with two parents who are problem drinkers are at even higher risk for injury. The association between parental drinking and child injuries might be used as motivation for behavioral change, as parents may respond more readily to a message concerning the effects of their behaviour on their children's health than to messages about the impact on their own health.<sup><12></sup>

With increased awareness of parental drinking problems, physicians need not make a diagnosis of alcoholism, but may recommend further exploration, leading to an expression of concern for parent and children, and promoting appropriate care for the alcoholic parent. (See Chapter 42 on Problem Drinking).

### ***Intervention Programs***

Until recently most alcohol intervention programs were aimed at the alcoholic parent. Programs that exist for children are mainly for children of parents who are hospitalized for alcoholism.

Interventions<sup><45></sup> for COA of Alcoholics are directed toward four main goals:

1. Establishing and maintaining a primary relationship with an adult; consistent contact with the child by the health care provider may be the only continuous relationship the child has;
2. Learning about alcoholism as a disease, and acknowledging that a parent is an alcoholic;
3. Learning about safety – knowing when and how to get help; and
4. Referral to a support group.

A brief review of the background literature on services available for the COA indicates that treatment is limited,<sup><10></sup> and that different types of agencies vary in the extent of family services provided. One U.S. study<sup><46></sup> found that despite the fact that a large number of COA have been identified, only 5% of children of alcoholics received the treatment they needed. A more recent study,<sup><11></sup> assessing the use of family services in 70 inpatient and 51 outpatient alcoholism treatment programs run by the

Department of Veteran Affairs, found services for COA were nearly non-existent, being limited to the referral of teenage children to Al-Ateen. Nearly 90% of the programs did not offer services directed to the needs of the patients' family members, or to their children. Services investigated were individual therapy, group therapy or education groups.

Al-Ateen and Al-Atot (both offshoots of the Alcoholics Anonymous program) are anonymous support groups available to any adolescent or child who has an alcoholic parent. Groups exist in major towns across Canada. It is thought that identification and sharing experiences with other children who have similar problems may give a child a better understanding of their parent's problems and their own self-image. The success of these groups has not been well researched, due in part to the constraints of maintaining anonymity of the members. In an early non-replicated preliminary study of COA, those who attended Al-Ateen groups reported higher self-esteem and better school grades than those COA who did not attend meetings, but no behavioral changes were found.<9>

Although there is agreement that early intervention is needed to interrupt the development of problems, few school programs exist, and those that do have no comparable populations, programs, or outcome measures. A survey of school nurses reported that they have difficulty identifying COA, and lack the necessary knowledge and skills to intervene.<45> The efficacy of prevention programs for COA depends not only on the effectiveness of the intervention, but also on whether the target population is being reached. One study<47> has evaluated the effectiveness of a recruitment procedure to target COA in the general population. It used reports from all children in Grades 4 through 6 to determine the risk status of those responding to the recruitment process. Results showed that the level of concern about parental drinking was higher for children who showed interest in the program, than for those who showed no interest. Although the study showed that recruitment procedures attracted children at risk, this study was limited because children's reports<40> of parental drinking have been found to have little validity. Another study<48> attempted to evaluate the efficacy of a self-selection recruitment process, designed to attract fourth to sixth grade children into a school-based prevention program for COA. The recruitment process was not effective in recruiting children of alcohol abusing parents. A different study provided a possible reason for this.<49> It showed that any labelling of the children as COA may have detrimental consequences due to the negative stereotyping from peers that accompanies the label.

In summary, little work has been done to develop or evaluate treatment and prevention programs for COA in the general population, so the true efficacy of treatment has not yet been determined. At present available data are insufficient for drawing strong conclusions concerning the effectiveness of any of the treatment programs for COA.

## **Recommendations of Others**

The U.S. Preventive Services Task Force<50>, the Institute of Medicine in the U.S., and the Alcohol Risk Assessment Intervention Project of the College of Family Physicians of Canada have recommended that all patients age 12 years or older be screened to assess their level of risk drinking. Thus the screening is directed at alcohol consumption and does not focus on COA or their emotional and behavioral problems. Additionally, the College of Family Physicians of Canada<51> suggests that physicians recognise that COA may feel isolated, depressed, inadequate, have deep-seated guilt feelings, and may tend to see their problems as minor when compared to their family's problems. The family physician is encouraged to offer help regularly and to assist COA to recognise that they have a right to seek assistance.<51>



## Conclusions and Recommendations

There is poor evidence (based on expert opinion alone) to support the inclusion or exclusion of routine evaluation of asymptomatic offspring of alcoholic parents from the periodic health examination (C Recommendation). Physicians should be sensitive to the possibility of alcohol-related stressors in offspring of alcoholic, or alcohol-abusing parents, and in some high-risk groups, particularly children hospitalized for injury. Primary health care providers are in an excellent position to effect the primary prevention of some children's injuries by identifying, evaluating and assisting families in recovery from the effects of family alcoholism.

While there is fair evidence that the CAST can identify children at risk (B Recommendation) other screening questionnaires have not been evaluated (C Recommendation) and there is insufficient evidence of treatment efficacy to evaluate screening for management purposes (C Recommendation). School and community-based programs have not been adequately evaluated (C Recommendations).

## Unanswered Questions (Research Agenda)

While many basic research questions require further study and resolution before clinical questions can be addressed, the following questions have been raised:

1. Evaluating the accuracy of family physicians in identifying the prevalence of alcohol (and other drug) abuse and dependence in patients whether they be parents or children.
2. Further longitudinal studies aimed at identifying biological vulnerability and psychological risk factors in COA.
3. Evaluation of the methods of recruitment of populations to treatment, intervention and prevention programs.
4. Studies of the ethical issues involved in the potential harmful effects of labelling children as COA.
5. Rigorous evaluations of prevention, early intervention and treatment programs for COA.
6. Study of the protective factors which permit COA, despite known risk factors, to grow up and become successfully functioning adults.
7. Study of effects of societal change in family life of COA, especially the effects of single-parent families and sex roles on family alcohol problems.

## Evidence

The literature was identified with a MEDLINE search from 1988 to October 1993, using the following key words: children of alcoholics. Review of this topic was initiated in October 1993 and recommendations were finalized by the Task Force in April 1994.

## Acknowledgments

The Task Force thanks Michael Moffatt, MD, MSc, FRCPC, Associate Professor of Pediatrics and Child Health, Associate Head and Associate Professor of Community Health Services, University of Manitoba, Winnipeg, Manitoba, and Roberta Palmour, PhD, Associate Professor of Psychiatry and Human Genetics, McGill University, Montreal, Quebec, for reviewing the draft report.

## Full Citation

McNamee JE and Offord DR Children of alcoholics. In: Canadian Task Force on the Periodic Health Examination. [Canadian Guide to Clinical Preventive Health Care](#). Ottawa: Health Canada, 1994; 470-85.