Getting the facts on physical activity

On the website of the College of Family Physicians of Canada (www.cfpc.ca) is a press release on the dreadful state of physical inactivity of Canadians, particularly the young. (See also the editorial by Dr Andrew Pipe in the January 2002 issue of Canadian Family Physician.) Several important points are made about disturbing trends in Canadian activity levels and the power of family physicians to help with exercise prescriptions.

However, some numbers were misused in the following extract from the press release (and the editorial):

Statistics linked to the physical activity levels of Canada’s youth are most concerning:
• Between 1981 and 1996, obesity nearly tripled among boys, and more than doubled among girls.
• Canadian children now expend 400 per cent less energy than their counterparts did 40 years ago.
• Two-thirds of Canadian children and youth are not active enough for optimal growth and development.

In point number 2, “400 per cent less energy” actually means that, compared to 40 years ago, Canadian children now expend a negative amount of energy three times as great as the total positive energy their counterparts expended 40 years ago. This, of course, is impossible. I presume the figure is meant to convey that children today have been found in studies to expend about one quarter of the energy they did 40 years ago. But I am not sure that is what is meant.

It would be clearer to say “Canadian children now expend only 25% of the energy of their counterparts of 40 years ago.”

This misuse of percentages (actually of denominators) is quite common and unfortunately risks making perceptive readers see the red flag of hyperbole, and thus pay less attention to the article. This would be regrettable, because the risks and consequences of Canadians becoming dangerously sedentary is so real.

—Doug MacIntosh, MD, CCFFP Peterborough, Ont by e-mail

Response

Mea culpa. Dr MacIntosh is correct. The statistics cited in the press release and editorial, and their formulation, are more confusing than constructive. His reconstructions are clearer and more robust. I am grateful both for his comments and to note that his interpretation of what was meant was identical to my own. I am duly chastened. In keeping with the theme of the editorial, I will promise to “shape up” in the future!

—Andrew Pipe, MD, DIP SPORT MED

Test result could mean different things

I read with some dismay a letter by Dr Philip Berger regarding the article by Dr Philip Winkelaar, “Who is using the drugs I prescribe?”

In his letter, Dr Berger indicated that use of urine drug testing in this case could identify diversion of the drug by the presence or absence of methylphenidate in the child’s urine. This is not true.

Use of urine drug testing in this way is intrinsically unfair, as it uses the absence of the drug as a “positive” sign of diversion. Compliance testing is a dangerous use of urine drug screen technology. While you can, with reasonable certainty, act on the presence of a drug that should not be there, the opposite is not true. In the case of a drug-test sample that is negative for methylphenidate, it could mean one of many things.

A common reason for a negative test result is that the laboratory’s cutoff concentration is too high. For example, the cutoff for cocaine is typically set at 300 ng/mL. A measurement of 299 ng/mL
would be reported as ND (not detected) and 301 ng/mL would be reported as positive. There is no correlation between urine concentration of drug detected and quantity of drug taken. The difference between collecting a sample in the early morning (when urine is more concentrated) compared with collection later in the day could turn a marginally positive result into a negative result. Other reasons for a negative test result include laboratory error in testing, clerical error, test insensitivity, and noncompliance (such as bingeing leading to running out of a drug early). Diversion to a third party is not the only explanation for an unexpected negative result.

In any unexpected laboratory result, the first step is to check with the laboratory that did the test to ensure the result is as reported. In compliance testing, you should typically ask for “limit of detection” testing or “no-threshold” testing to ensure that a result that is positive is not missed because it is below reporting threshold. A toxicologist can help to interpret the result.

I refer you to the website of the California Academy of Family Physicians (www.familydocs.org/UDT.pdf and www.familydocs.org/UDT_RefCard.pdf) for a recently completed monograph on use of urine toxicology in primary care.

—Douglas Gourlay, MD, MSC, FRCPC
Toronto, Ont
by e-mail

**Response**

Dr Gourlay might be dismayed, but his assertion that diversion should not be invoked as a reason for a negative urine test result stands in total contradiction to the very website to which he refers readers. The California Academy of Family Physicians’ document, which lists Dr Gourlay as the first of three authors, states that a true negative urine test “…may be the result of diverting the prescribed medication or running out of the drug early due to ‘bingeing.’”

Further, in its Methadone Maintenance Guidelines (which Dr Gourlay helped craft), the College of Physicians and Surgeons of Ontario recommends urine testing for presence of methadone metabolites. Methadone diversion is a well recognized phenomenon. Urine testing for presence or absence of methadone metabolites is a well established practice by methadone prescribers. The absence of metabolites might indicate that methadone was not taken as prescribed and raises the possibility of methadone diversion.

Finally, Dr Gourlay raises a legitimate point about laboratory testing techniques. The caution with which any laboratory result, including urine testing, must be interpreted does not preclude consideration of diversion in patients being prescribed drugs of potential abuse and for whom urine tests are reported as negative for the drug.

—Philip B. Berger, MD, CCFP, FCFP

**References**


**Another infectious disease guide for Palms**

We read with great interest Dr Cameron’s review of infectious disease guides for Palms. Dr Cameron had assessed three popular applications: the Sanford Guide, ePocrates ID, and ABX POC-IT Guide. We have tested another application from the popular 5-minute consult series: 5mID consult (trial version). This software was created by “Skyscape,” one of the best companies, in our view, of medical software for hand-held computers.

The application can be downloaded from www.skyscape.com or www.palmgear.com and costs $89.95 (US). It is a shareware program (ie, you can try it before purchasing). Unlike the Sanford Guide and ePocrates ID, this application represents basically a brief textbook. For each topic there is a pop-up screen as well as a side index for Basics, Clinical manifestations, Diagnosis, Treatment, Follow-up, and Selected readings. You can add notes to each of them, as well as create a new entity. The software can be run off the memory expansion card.

The opening screen gives four options: main index, microorganisms, medical index (all are alphabetical), and table of contents, which in turn includes four chapters: “Chief Complaint,” “Specific Infections and Diseases,” “Microorganisms,” and