

Plastic grass is not the solution – it is the problem

A number of cities have argued that grass fields have become unsafe, too expensive to maintain, and that the growing demands of children's soccer programs make a radical change to artificial turf necessary.

A group of concerned citizens in Westmount Quebec came together as Save the Park/Sauvons le parc to oppose the proposal on social, environmental and financial grounds. While they emphatically supported the aim of allowing as many children as possible to play organized sports, it was felt that the project was unsuitable, unnecessary and damaging to Westmount Park as a whole.

First, some facts about artificial turf (AT):

- Contrary to marketing myth, AT is not safer than real grass; the torque produced by stopping and turning on AT actually leads to more knee, ankle and muscle sprains.
- Third-generation AT is manufactured from polyethylene and ground-up rubber crumb from recycled tires and shoes containing toxins such as heavy metals (lead, arsenic and zinc) and Polycyclic Aromatic Hydrocarbons (PAHs). The rubber crumb is volatile, sticking to children's clothing and shoes, and sometimes even enters their lungs. The level of toxins in AT is so high that its disposal in landfills is prohibited. It also requires chemical cleaners and pesticides to combat fungi and algae.
- AT absorbs solar heat, creating surface temperatures up to 30°C higher than those of grass – worse even than asphalt.
- Perhaps most worrying is the association of AT with the increasing incidence of an antibiotic-resistant staph infection, MRSA, directly attributable to the numerous serious skin abrasions, or turf burns, which occur on the synthetic surface. Concern over these sometimes life-threatening infections among young players has led the Centers for Disease Control in the United States to monitor the phenomenon.

Paradoxically, Westmount was prepared to spend far more money for synthetic turf-- up to \$2.4 million with up-grades -- than it would cost to reconfigure the fields with grass. Other cities use natural surfaces successfully and efficiently; for example, Edmonton maintains its grass fields annually, for more children, at 2/3 of the current cost to Westmount.

In Westmount there were very good reasons to reject the installation of synthetic turf. But the strongest argument against the proposal was social. Often the sites proposed are public, multi-purpose parkland, and in their place the cities propose to build single-use sports facilities. What now serves the whole community will become specialized and restricted. To suggest that this would somehow benefit children is disingenuous.

The rule for artificial turf is fencing all around. The reason is simple: organic matter and debris, such as gum, food, or cigarettes, are harmful to it. Chances are that soon a city

official would point to litter, dogs or other irritants as justification for enclosing the fields entirely. On that day the loss of public green space would be complete.

Grass fields should not be sacrificed lightly. Once lost, their true value will be impossible to recover.

REFERENCES

I have included only one reference source for each of the points under 'First, some facts about artificial turf (AT)'. Other references exist (particularly with regard to PAHs) but these give the main points in solid form. Their bibliographies also include numerous other articles.

1. Michael C. Meyers and Bill S. Barnhill. Incidence, Causes and Severity of High School Football Injuries on FieldTurf Versus Natural Grass: A 5-Year Prospective Study. *The American Journal of Sports Medicine* 2004, 32 (7): 1626
2. William Crain (City College of NY) and Junfen Zhang (Rutgers). Hazardous Chemicals in Synthetic Turf – Sep. 7, 2006 Rachel's Democracy and Health News #873
3. C. Frank Williams and Gilbert E. Pulley. Synthetic Surface Heat Studies. Brigham Young University 2002. *I don't know the Journal –try the Internet* Also 'A New Turf War: Synthetic Turf in New York City Parks', Spring 2006 page 8 Urban Heat Island Effects
4. Kazakova, S. V. et al. A Clone of Methicillin-Resistant *Staphylococcus aureus* among Professional Football Players. *NEJM* 2005; 352: 468-475