Possible Health Effects

Cancer: Many of the compounds used to create crumb rubber infill contain known carcinogenic properties

Playing area temperatures: Artificial turf surfaces absorb heat, allowing temperatures to exceed far above the actual air temperature leading to dehydration and heat exhaustion

Turf burn & infection: The friction caused from skin-to-turf contact causes an abrasion also known as 'turf burn' which opens the door to infections such as Antibiotic resistant staph infections (MRSA)

Irritation from dust particles: Contact with fine particles from the infill material can produce severe irritation of the respiratory system, eyes, skin, and mucous membranes, in addition to systemic effects on the liver and kidneys.

Flame retardants: Synthetic turf is highly flammable and therefore it is typically treated with flame-retardants which are known to cause reproductive disorders, birth defects, infertility and developmental disorders.

Recommendations for Playing it Safe

1. Wash hands and exposed body parts aggressively after playing on a synthetic turf field.
2. Turn clothes inside out as soon as possible to avoid tracking dust to other locations.
3. Be aware of signs of heat-related illnesses and dehydration!
4. If you experience a 'turf burn' clean the abrasion with a saline or antibacterial solution immediately after your fall. Athlete's tip: Carry a pack of “Wet Ones” wipes in your athletic bag!
5. Cover all cuts before playing on a synthetic turf field. and in a bag/cooler when not drinking to minimize contaminations from field dust or fibers.

Follow the Precautionary Principle

Health studies on synthetic turf have raised serious concerns, but have not been conclusive, because they failed to address the multiple toxins and exposure pathways. Until comprehensive studies are done, it is just common sense to follow the Precautionary Principle:

When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.

Synthetic Turf Costs More!

Below is a diagram showing the cost differences between natural grass and synthetic turf. As you can see, synthetic turf costs more than natural grass when comparing the average cost per hour of use based on costs from a synthetic turf producer.

<table>
<thead>
<tr>
<th></th>
<th>Natural Grass</th>
<th>Synthetic Turf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Preparation</td>
<td>$150,000</td>
<td>$320,000</td>
</tr>
<tr>
<td>Materials</td>
<td>$2.75 sq ft</td>
<td>$4.75 sq ft</td>
</tr>
<tr>
<td>Maintenance</td>
<td>$20,000 yr</td>
<td>$5,000 yr</td>
</tr>
<tr>
<td>Total</td>
<td>$170,000</td>
<td>$380,000</td>
</tr>
</tbody>
</table>

Average cost * per hour of use
- Natural Grass: $63.33
- Synthetic Turf: $83.33

* Based on 5000 hrs/yr (average of 30 hrs/week for 30 weeks)