



## A Natural High

Endurance aerobic activities (like jogging, cycling, dancing, rowing and the like) have long been seen as reducing stress, relieving anxiety, enhancing mood and decreasing the perception of pain. The high that can sometimes accompany jogging even led to the creation of its own term, “runner's high.”

There are various theories on how this “high” occurs related to the natural release in the body of endorphins, endocannabinoids or leptin. These “natural drugs” activate the same mechanisms in the brain as opioids, cannabis or other drugs. While the research on the “runner’s high” is not definitive, there is solid evidence that exercise, even in smaller doses, can boost your mood, raise your energy level, relieve anxiety and make you feel calm and relaxed. This on top of all the other benefits of physical activity!

### Instructional strategies

1. Introduce the expression “runner’s high” and ask students questions like:
  - a. What do you think the expression means?
  - b. Why is it called a high? [Share a wee bit of information about the natural processes that are similar to what happens when people take drugs.]
  - c. Could you say people who run or participate in aerobic activities are taking a drug? If so, is this better than actually taking a drug? Why or why not?
  - d. Could you say people who run or participate in aerobic activities regularly are addicted? If so, is this better than being addicted to a drug? Why or why not?
2. Or, simply invite students to share their experiences about how physical activity makes them feel. Explore both the pain and the ecstasy. You might use questions like:
  - a. How does engaging in robust physical activity make you feel?
  - b. Is the reward worth all the pain? What is the benefit of pushing yourself?
  - c. Why do some people work out regularly? What do they get out of it?
  - d. What types of physical activity do you enjoy? Why?
3. Following either of the discussions above, introduce a unit in which students will explore and experience different types of aerobic activity. Have students keep a journal during this unit, and encourage them to reflect on how they were feeling during and after each activity.
4. A few possible extension activities:
  - a. Invite students to research the benefits of a particular physical activity that interests them. The resources noted below provide excellent, credible starting points.
  - b. Peer-led, fun-focused physical activity opportunities (e.g., intramurals, active recess time if working in a K-8 school) provide learning and leadership opportunities and also help foster social networking across grade levels.

### Resources

**New brain effects behind "runner's high"** – Scientific American article copied from Judy Lavelle, Chemical & Engineering News, October 8, 2015. [www.scientificamerican.com/article/new-brain-effects-behind-runner-s-high/](http://www.scientificamerican.com/article/new-brain-effects-behind-runner-s-high/)

**Scientists say ‘runner’s high’ is like a marijuana high** – a Huffington Post piece that summarizes various published research studies and sheds some light on the various theories about the “runner’s high.” [www.washingtonpost.com/news/to-your-health/wp/2015/10/08/scientists-runners-high-like-marijuana-high/](http://www.washingtonpost.com/news/to-your-health/wp/2015/10/08/scientists-runners-high-like-marijuana-high/)

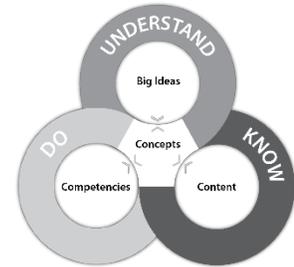
**PhysEdGames** ([physedgames.com](http://physedgames.com)) – a great list of fun focused activities for a wide range of ages that is recommended by the Physical Education in BC teachers association. See also [CIRA Ontario](#).

**Healthy Families BC** ([www.healthyfamiliesbc.ca/activity-lifestyles](http://www.healthyfamiliesbc.ca/activity-lifestyles)) – has a whole section on “Activity and Lifestyle” with loads of tips, articles and links to other resources, including [Participation](#) and the [Canadian Physical Activity Guidelines and Canadian Sedentary Behaviour Guidelines](#).

## Drug literacy

### Big ideas

- Drugs can be tremendously helpful and also harmful
- As humans, both individually and as communities, we need to learn how to manage the drugs in our lives
- We can learn how to control drugs by examining human thinking through time, exploring stories from various cultures and listening to each other



### Competencies

- Explore and appreciate diversity related to the reasons people use drugs, the impact of drug use and the social attitudes toward various drugs
- Develop social and communication skills in addressing discourse and behaviour related to drugs

For a complete look at the drug literacy competencies, as defined by the Centre for Addictions Research of BC, see: <http://www.uvic.ca/research/centres/carbc/assets/docs/iminds/hs-pp-drug-curriculum.pdf>

## Links to Curriculum

### First Peoples’ principles of learning

- Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors
- Learning involves recognizing the consequences of one’s actions

## Physical and Health Education 8

### Big ideas

- Daily participation in different types of physical activity influences our physical literacy and personal health and fitness goals
- Lifelong participation in physical activity has many benefits and is an essential part of a healthy lifestyle
- Healthy choices influence our physical, emotional and mental well-being

### Competencies

- Describe how students’ participation in physical activities at school, at home, and in the community can influence their health and fitness
- Identify and apply strategies to pursue personal healthy-living goals
- Describe and assess strategies for promoting mental well-being, for self and others
- Describe and assess strategies for managing problems related to mental well-being and substance use, for others

This resource was developed by the Centre for Addictions Research of BC with funding provided by the Government of Canada. Any views expressed herein are those of the authors and do not necessarily represent the views of the Government of Canada or the Centre for Addictions Research of BC.