

Critical Evaluation of a Web Page Lesson Plan

(Grades 6-8)

Essential Question

Why is it important to evaluate the source and validity of the information found on a Web site?

Expectations

Ontario Language Curriculum

- Evaluate the effectiveness of the presentation and treatment of ideas, information, themes, opinions, issues, and/or experiences in media texts
- Demonstrate understanding that different media texts reflect different points of view
- Identify who produces various media texts and determine the commercial, ideological, political, cultural, and/or artistic interests or perspectives that the texts may involve

Materials

- Online brainstorming tool, computer, and projection device
- Internet access or hard copy of Web page for each student
- 5W's handout for each student
- *The Important Book* summarizer sheet
- Beaker of DHMO, spoonful of sugar, rubber gloves, goggles, lab coat if available.

Procedure

1. Wearing a lab coat, goggles and rubber gloves, demonstrate the power of DHMO by carefully adding a spoonful of α -D-glucopyranosyl-(1 $\rightarrow$ 2)- β -D-fructofuranoside (sucrose) into a beaker of water. Stir the solution and have students note how the crystals disappear.
2. Show the [YouTube video](#) with the sound off, and the title hidden. Tell students the DHMO in the video is just more concentrated than what you have in the beaker.
3. Using an online brainstorming tool, the SmartBoard or the printed Brainstorming Template, have the students brainstorm a list of criteria which make a Web page useful for research. Answers should include title, author, date of creation, date of update, source of the information, contact e-mail address, layout of page, ease of use, fast to load, etc.
4. Pass out the 5 W's handout and go over it. Be sure to emphasize the importance of the credibility of the author and the source of the information on the page. Talk about ways to determine if information is correct (e.g. finding the information in a print source, on another Web page, via an expert)

5. Surf to the [Ban Dihydrogen Monoxide page](#) or hand out the PDF version (below) and have students, on their own or in small groups, evaluate the information on the page using the critical evaluation tool.
6. Have the class come back as a group and discuss the pro's and con's of this page. Did anyone know the information was bogus? How could this be determined? Emphasize the fact that with little knowledge of a topic it is almost impossible to know if the information located is correct.
7. In small groups, have students visit some of the other bogus Web sites listed at the bottom of this page:
8. Be sure to reveal to students that all you had in the beaker was water. The video showed Sodium (a highly reactive element) reacting in plain water.

Assessment

1. Have the students fill out *The Important Book* summarizing sheet.
2. Have the students write a paragraph explaining why it is important to evaluate the information found on a Web page. Have them include the ways to find out more about the author, the sponsoring agency, or the information itself.
3. Have the students create a list of 10 questions to ask themselves when critically evaluating the information they have found.

Extension Activities

1. Have students create a WHMIS material data safety sheet for water.
2. Have students compose a one-page instruction sheet or [infographic](#) to explain the Web page evaluation process to younger students.
3. Have students identify other Web sites dealing with critical evaluation of Web information or additional bogus sites and have them create a Web page, [Diigo list](#), or [Glogster page](#) with links and descriptions

Additional Bogus Websites

- [Aluminum Foil Deflector Beanie](#)
Shield your brain from mind control.
- [California's Velcro Crop Under Challenge](#)
Ken Umbach's obvious but amusing satirical piece of writing for students in Early to Late Adolescence.
- [GenoChoice](#)
Create your own genetically healthy child online.
- [Dihydrogen Monoxide](#)
Tom Way's scientific terminology demonises a substance we can't live without. The whole site is worth investigation. This site originated from a 14-year-old secondary school student's science project.
- [Feline Reactions to Bearded Men](#)
Even the web address indicates the status of this piece of scientific research. Check their [Classics and Whatnot](#) page for lots of other improbable science.
- [Haggis Hunt](#)
This funny site adamantly proclaims that a Haggis is a wild animal.
- [Kick started by a dung beetle](#)
Peter Macinnis shows how to make a simple story convincing. His Giant Dung Beetle in Cootaburra on the Corella River has appeared in news stories around the world.

- [MoonBeam Enterprise](#)
How to buy your piece of the Moon.
- [Ova Prima Foundation](#)
Investigates which came first - the chicken or the egg.
- **Mankato - Which is the real city website?**
The real city of Mankato is not impressed by the bogus site run from a local university.
 - [Mankato Minnesota Home Page](#)
 - [City of Mankato, Minnesota](#)
- [McWhortle Enterprises, Inc.](#)
This hoax site was set up by the **U.S. Securities and Exchange Commission** to teach people how to watch out for scams. The site looks and 'feels' real

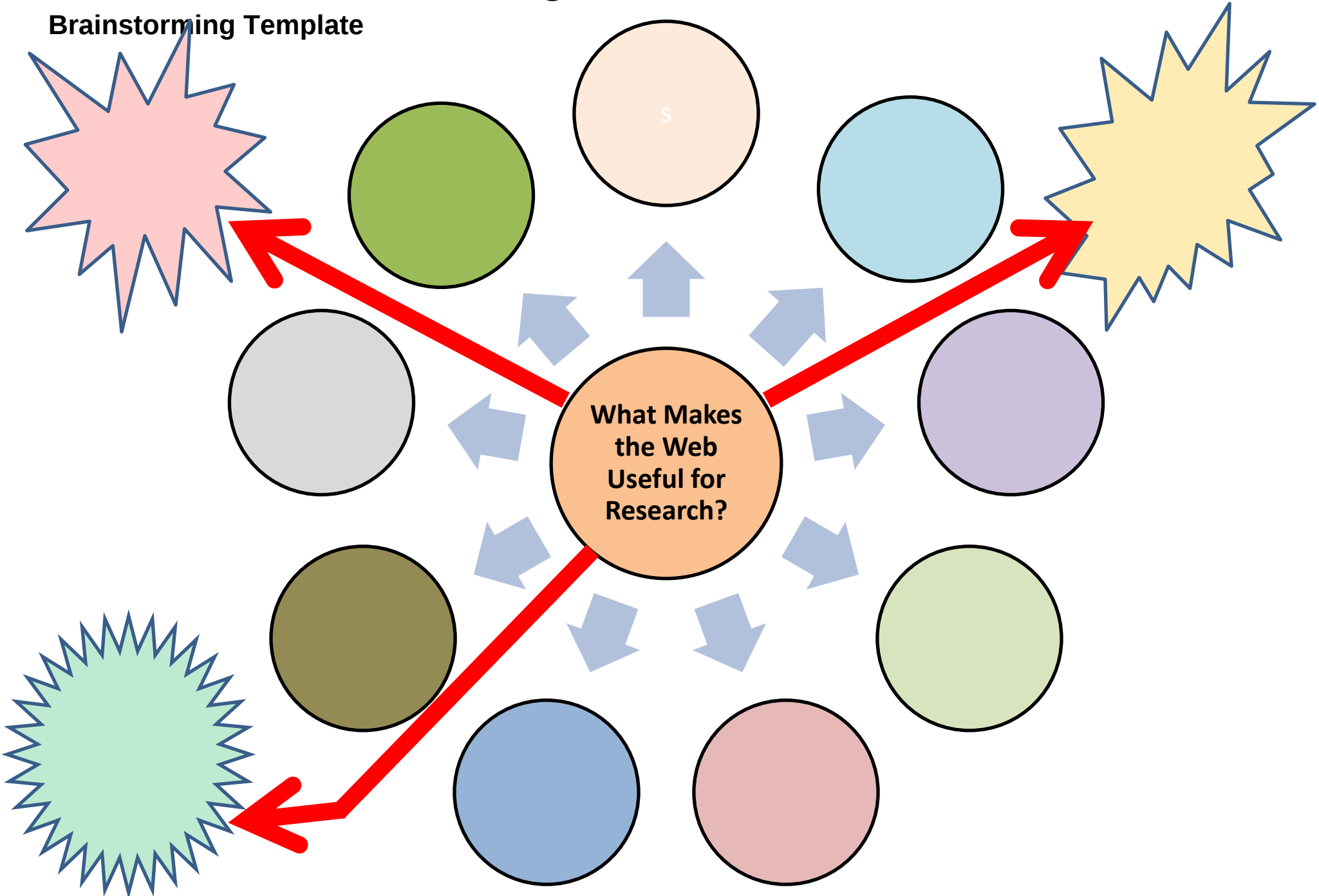
to the people searching the Internet for investment opportunities and is great to use with older secondary students.

- [RYT Hospital - Dwayne Medical Center](#)
Aclaimed as providing 'all the miracles of modern medicine'.
 - [Male Pregnancy](#)
 - [Clyven the Transgenic Talking Mouse](#)
- [Sellafield Zoo](#)
Where the wildlife has a half-life!
- [Uncyclopedia](#)
A satirical look at Wikipedia, including some very funny feature articles.

Evaluation of a Web Page

Name: _____

Brainstorming Template



The 5 W's of Website Evaluation

WHO

- Who wrote the pages and are they an expert?
- Is a biography of the author included?
- How can I find out more about the author?

WHAT

- What does the author say is the purpose of the site?
- What else might the author have in mind for the site?
- What makes the site easy to use?
- What information is included and does this information differ from other sites?

WHEN

- When was the site created?
- When was the site last updated?

WHERE

- Where does the information come from?
- Where can I look to find out more about the sponsor of the site?

WHY

- Why is this information useful for my purpose?
- Why should I use this information?
- Why is this page better than another?

The Important Book

Summarizing Worksheet

Name: _____

The Important Book by Margaret Wise Brown was written in 1949, and is still in print today!

It contains eleven short essays all written in the same style, with an introductory fact, other supporting facts, and a repeat of the most important first fact. An example from the book reads like this

Using this same format, summarize the reasons for taking the time to critically evaluate information found on a Web page.

The important thing about rain
is that it is wet.

It falls out of the sky,
And it sounds like rain,
And makes things shiny,
And it does not taste like
anything,
And is the color of air.

But the most important thing
about rain is that it is wet.

The important thing about the critical evaluation of web page information is:

It _____

And _____

And _____

And _____

But the important thing about the critical evaluation of web page information is



Dihydrogen Monoxide FAQ

FAQs

- [What is Dihydrogen Monoxide?](#)
- [Should I be concerned about Dihydrogen Monoxide?](#)
- [Why haven't I heard about Dihydrogen Monoxide before?](#)
- [What are some of the dangers associated with DHMO?](#)
- [What are some uses of Dihydrogen Monoxide?](#)
- [What is the link between Dihydrogen Monoxide and school violence?](#)
- [How does Dihydrogen Monoxide toxicity affect kidney dialysis patients?](#)
- [Are there groups that](#)



Frequently Asked Questions About Dihydrogen Monoxide (DHMO)

What is Dihydrogen Monoxide?

Dihydrogen Monoxide (DHMO) is a colorless and odorless chemical compound, also referred to by some as Dihydrogen Oxide, Hydrogen Hydroxide, Hydronium Hydroxide, or simply Hydric acid. Its basis is the unstable radical Hydroxide, the components of which are found in a number of caustic, explosive and poisonous compounds such as Sulfuric Acid, Nitroglycerine and Ethyl Alcohol. For more detailed information, including precautions, disposal procedures and storage requirements, refer to the [Material Safety Data Sheet \(MSDS\)](#) for Dihydrogen Monoxide.

Should I be concerned about Dihydrogen Monoxide?

Yes, you should be concerned about DHMO! Although the U.S. Government and the Centers for Disease Control (CDC) do not classify Dihydrogen Monoxide as a toxic or carcinogenic substance (as it does with better known chemicals such as hydrochloric acid and saccharine), DHMO is a constituent of many known toxic substances, diseases and disease-causing agents, environmental hazards and can even be lethal to humans in quantities as small as a thimbleful.



Research conducted by award-winning U.S. scientist Nathan Zohner concluded that roughly 86 percent of the population supports a ban on dihydrogen monoxide. Although his results are preliminary, Zohner believes people need to pay closer attention to the information presented to them regarding Dihydrogen Monoxide. He adds that if more people knew the truth about DHMO then studies like the one he conducted would not be necessary.

A similar study conducted by U.S. researchers Patrick K. McCluskey and Matthew Kulick also found that nearly 90 percent of the citizens participating in their study were willing to sign a petition to support an outright ban on the use of Dihydrogen Monoxide in the United States.

Why haven't I heard about Dihydrogen Monoxide before?

Good question. Historically, the dangers of DHMO, for the most part, have been considered minor and manageable. While the more significant dangers of Dihydrogen Monoxide are currently addressed by a number of agencies including FDA, FEMA and CDC, public awareness of the real and daily dangers of Dihydrogen

[oppose a ban on Dihydrogen Monoxide?](#)

- [Has the press ignored this web site and the Dihydrogen Monoxide problem?](#)
- [Is it true that using DHMO improves athletic performance ?](#)
- [Can using Dihydrogen Monoxide improve my sex life?](#)
- [What are the symptoms of accidental Dihydrogen Monoxide overdose?](#)
- [What is a chemical analysis of Dihydrogen Monoxide](#)
- [What can I do to minimize the risks?](#)
- [How can I find out more about Dihydrogen Monoxide?](#)

Monoxide is lower than some think it should be.

Critics of government often cite the fact that many politicians and others in public office do not consider Dihydrogen Monoxide to be a "politically beneficial" cause to get behind, and so the public suffers from a lack of reliable information on just what DHMO is and why they should be concerned.



Part of the blame lies with the public and society at large. Many do not take the time to understand Dihydrogen Monoxide, and what it means to their lives and the lives of their families.

Unfortunately, the dangers of DHMO have increased as world population has increased, a fact that the raw numbers and careful research both bear out. Now more than ever, it is important to be aware of just what the dangers of Dihydrogen Monoxide are and how we can all reduce the risks faced by ourselves and our families.

What are some of the dangers associated with DHMO?

Each year, Dihydrogen Monoxide is a known causative component in many thousands of deaths and is a major contributor to millions upon millions of dollars in damage to property and the environment. Some of the known perils of Dihydrogen Monoxide are:

- Death due to accidental inhalation of DHMO, even in small quantities.
- Prolonged exposure to solid DHMO causes severe tissue damage.
- Excessive ingestion produces a number of unpleasant though not typically life-threatening side-effects.
- DHMO is a major component of acid rain.
- Gaseous DHMO can cause severe burns.
- Contributes to soil erosion.
- Leads to corrosion and oxidation of many metals.
- Contamination of electrical systems often causes short-circuits.
- Exposure decreases effectiveness of automobile brakes.
- Found in biopsies of pre-cancerous tumors and lesions.
- Often associated with killer cyclones in the U.S. Midwest and elsewhere.
- Thermal variations in DHMO are a suspected contributor to the El Nino weather effect.



What are some uses of Dihydrogen Monoxide?

Despite the known dangers of DHMO, it continues to be used daily by industry, government, and even in private homes across the U.S. and worldwide. Some of the well-known uses of Dihydrogen Monoxide are:



- as an industrial solvent and coolant,

- in nuclear power plants,
- by the U.S. Navy in the propulsion systems of some older vessels,
- by elite athletes to improve performance,
- in the production of Styrofoam,
- in biological and chemical weapons manufacture,
- as a spray-on fire suppressant and retardant,
- as a major ingredient in many home-brewed bombs,
- as a byproduct of hydrocarbon combustion in furnaces and air conditioning compressor operation,
- in cult rituals,
- by both the KKK and the NAACP during rallies and marches,
- by pedophiles and pornographers (for uses we'd rather not say here),
- by the clientele at a number of homosexual bath houses in New York City and San Francisco,
- historically, in Hitler's death camps in Nazi Germany, and in prisons in Turkey, Serbia, Croatia, Libya, Iraq and Iran,
- in World War II prison camps in Japan, and in prisons in China, for various forms of torture,
- by the Serbian military as authorized by Slobodan Milosevic in their ethnic cleansing campaign,
- by many terrorist organizations,
- in community swimming pools to maintain chemical balance,
- in animal research laboratories, and
- in pesticide production and distribution.

What you may find surprising are some of the products and places where DHMO is used, but which for one reason or another, are not normally made part of public presentations on the dangers to the lives of our family members and friends. Among these startling uses are:

- as an additive to food products, including jarred baby food and baby formula, and even in many soups, carbonated beverages and supposedly "all-natural" fruit juices
- in cough medicines and other liquid pharmaceuticals,
- in spray-on oven cleaners,
- in shampoos, shaving creams, deodorants and numerous other bathroom products,
- in bathtub bubble products marketed to children,
- as a preservative in grocery store fresh produce sections,
- in the production of beer by all the major beer distributors,
- in the coffee available at major coffee houses in the US and abroad,
- in Formula One race cars, although its use is regulated by the Formula One Racing Commission, and
- as a target of ongoing NASA planetary and stellar research.



One of the most surprising facts recently revealed about Dihydrogen Monoxide contamination is in its use as a food and produce "decontaminant." Studies have shown that even after careful washing, food and produce that has been contaminated by DHMO remains tainted by DHMO.

What is the link between Dihydrogen Monoxide and school violence?



A recent stunning revelation is that in every single instance of violence in our country's schools, including infamous shootings in high schools in Denver and Arkansas, Dihydrogen Monoxide was involved. In fact, DHMO is often very available to students of all ages within the assumed safe confines of school buildings. None of the school administrators with which we spoke could say for certain how much of the substance is in use within their very hallways.

How does Dihydrogen Monoxide toxicity affect kidney dialysis patients?

Unfortunately, DHMO overdose is not unheard of in patients undergoing dialysis treatments for kidney failure. Dihydrogen Monoxide overdose in these patients can result in congestive heart failure, pulmonary edema and hypertension. In spite of the danger of accidental overdose and the inherent toxicity of DHMO in large quantities for this group, there is a portion of the dialysis treated population that continues to use DHMO on a regular basis.

Are there groups that oppose a ban on Dihydrogen Monoxide?

In spite of overwhelming evidence, there is one group in California that opposes a ban on Dihydrogen Monoxide. The [Friends of Hydrogen Hydroxide](#) is a group that believes that the dangers of DHMO have been exaggerated. Members claim that Dihydrogen Monoxide, or the less emotionally charged and more chemically accurate term they advocate for it, "Hydrogen Hydroxide," is beneficial, environmentally safe, benign and naturally occurring. They argue that efforts to ban DHMO are misguided.

Friends of Hydrogen Hydroxide is supported by the Scorched Earth Party, a radical and loosely-organized California-based group. Sources close to the Scorched Earth Party deny any outside funding from government, industry or pro-industry PACs.



Has the press ignored this web site and the Dihydrogen Monoxide problem?

For the most part, the press has not reported on the dangers of Dihydrogen Monoxide as much as some would like. Although many private individuals have put up web sites in a major grassroots effort to spread the word, major publications have not.

Recently, attention has been paid to the subject thanks to an incident in Aliso Viejo, California. This so-called Aliso Viejo Incident was widely reported in the media, although the director of DHMO.org, Dr. Tom Way, was called a "prankster." Once the Associated Press started circulating the story, it became fact, and the valuable information being provided by the DHMO.org website was deemed to be "rubbish" rather than an honest and unbiased recounting of facts about a dangerous, life-endangering chemical compound.

If you are a member of the press, you may access our online [Press Kit](#). See the [main page](#) for access information. This resource is for members of the press **only**.

Is it true that using DHMO improves athletic performance?

Absolutely! With the numerous allegations of amateur and professional athletes using anabolic steroids and/or blood doping to enhance performance, virtually no attention has been paid to the performance enhancing properties of Dihydrogen

Monoxide. It is perhaps the sporting world's dirtiest of dirty little secrets that athletes regularly ingest large quantities of DHMO in an effort to gain a competitive edge over an opponent.



One technique commonly used by endurance athletes in sports such as distance running and cycling is to take a large amount of DHMO immediately prior to a race. This is known within racing circles to dramatically improve performance. Sports-medicine physicians warn that ingesting too much Dihydrogen Monoxide can lead to complications and unwanted side-effects, but do acknowledge the link to improved performance. DHMO is not currently considered a banned substance, so post-race urine tests do not detect elevated or abnormal levels of DHMO.

Can using Dihydrogen Monoxide improve my sex life?



This is a popular myth, but one which is also actually supported by a number of scientific facts. Dihydrogen Monoxide plays an instrumental role in the centers of the brain associated with increased libido and orgasm. So, much as with endurance athletes, moderate intake of DHMO prior to engaging in sexual activity may enhance performance, although the same caveats apply.

What are the symptoms of accidental Dihydrogen Monoxide overdose?

You may not always recognize that you have been a victim of accidental DHMO overdose, so here are some signs and symptoms to look for. If you suspect Dihydrogen Monoxide overdose, or if you exhibit any of these symptoms, you should consult with your physician or medical practitioner. The data presented here is provided for informational purposes only, and should in no way be construed as medical advice of any sort.

Watch for these symptoms:

- Excessive sweating
- Excessive urination
- Bloated feeling
- Nausea
- Vomiting
- Electrolyte imbalance
- Hyponatremia (serum hypotonicity)
- Dangerously imbalanced levels of ECF and ICF in the blood
- Degeneration of sodium homeostasis

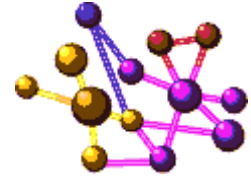
DHMO
Signs &
Symptoms



A recently noted medical phenomenon involves small amounts of DHMO leaking or oozing from the corners of the eyes as a direct result of causes such as foreign particulate irritation, allergic reactions including anaphylactic shock, and sometimes severe chemical depression.

What is a chemical analysis of Dihydrogen Monoxide

Recently, German analytical chemist Christoph von Bueltzingsloewen at the Universitaet Regensburg identified what may be key reasons why the dangers of DHMO are ever present. According to von Bueltzingsloewen, the chemical separation of dihydrogenoxide from the hazardous oxygendihydride is extremely difficult. The two similar compounds curiously occur in nearly equimolar distribution wherever they are found. It is not clear how the two contribute directly to the dangers inherent in Dihydrogen Monoxide, although von Bueltzingsloewen believes that a synergetic mechanism, catalyzed by traces of hydrogenhydroxide, plays a major role.



What can I do to minimize the risks?

Fortunately, there is much you can do to minimize your dangers due to Dihydrogen Monoxide exposure. **First**, use common sense. Whenever you are dealing with any product or food that you feel may be contaminated with DHMO, evaluate the relative danger to you and your family, and act accordingly. Keep in mind that in many instances, low-levels of Dihydrogen Monoxide contamination are not dangerous, and in fact, are virtually unavoidable. Remember, the responsibility for your safety and the safety of your family lies with you.

Second, exercise caution when there is the potential for accidental inhalation or ingestion of DHMO. If you feel uncomfortable, remove yourself from a dangerous situation. Better safe than sorry.

Third, don't panic. Although the dangers of Dihydrogen Monoxide are very real, by exercising caution and common sense, you can rest assured knowing that you are doing everything possible to keep you and your family safe.

How can I find out more about Dihydrogen Monoxide?

We would be happy to tell you more about DHMO! [Send us email](#) Send us email at director_at_dhmo_dot_org, and we'll gladly attempt to keep you up-to-date on current developments in the study of Dihydrogen Monoxide, its uses and misuses. There are a number of sites on the world wide web that contain more information on DHMO and related topics. It should be noted that we do not endorse these sites, nor do we control their content or political bias.

Links to related information

DHMO web sites

- [Anti-Dihydrogen Monoxide Coalition \(Ames, Iowa\)](#)
- [Coalition to Ban Dihydrogen Monoxide \(Headquarters\)](#)
- [Coalition to Ban Dihydrogen Monoxide \(Netreach\)](#)
- [Friends of Hydrogen Hydroxide \(DHMO supporters\)](#)
- [Material Safety Data Sheet](#)

Environmental & Safety Information

- [SafetyBiz.com](#) - Safety Engineer Jay Preston, expert in safety services and accident prevention
- [Clean Air Engineering](#) - promoting environmental responsibility and economic prosperity

[Back to DMRD main page](#)

URL: <http://www.dhmo.org/facts.html>

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