

“6 Things You Should Know About...” writing assignment

The objective of this assignment is to help you gain an understanding of a biochemical disease by briefly summarizing the disease and identifying the “6 Most important Things you Should Know About” the disease you have chosen. This will be written in the style of ESPN Magazines feature of the same name and the example(s) shown below.

The report will begin with a brief introductory summary of the disease. This summary should be no more than 100 words and should concisely summarize the disease you will be discussing while simultaneously garnering the reader’s interest. This will take thought to identify what you want to highlight and how to do it in a way that will draw readers in.

Following the summary, you will write what are essentially 6 short paragraphs highlighting what you feel are the 6 most important things to know about the disease you have chosen. Each “thing you should know” statement will be in bold font and the paragraph that follows will provide information supporting that statement.

You will be graded on the thoroughness of your research on the disease and the details in the report (including resources used and citations), the accuracy of the science, and your writing (style, mechanics, and grammar). A rubric will be available on the blackboard site.

In addition to the “6 Most important Things you Should Know About” report, you will turn in three annotated bibliographies from sources you used to write your report. Details on annotated bibliographies are available on Blackboard.

“6 things you should know about...” examples:

6 things you should know about teeth grinding

<http://www.besthealthmag.ca/get-healthy/oral-health/six-things-you-should-know-about-teeth-grinding>

By Lisa Bendall

Teeth grinding is the main sign of the condition bruxism. The painful symptoms of severe teeth gnashing and clenching include headaches, jaw pain and damaged teeth. About 10 percent of adults grind or clench their teeth. Here's what you need to know about bruxism.

1. It hurts more than just your teeth

In most cases bruxism is mild. But, when it's frequent and severe, grinding your teeth can aggravate the joints in your lower jaw, also known as the temporomandibular joints, or TMJs. This can lead to pain or tightness in the joint area, and even earaches and headaches. Of course, bruxism is bad news for your teeth, too. The habit can wear down your enamel, cause increased tooth sensitivity, and result in chipped or broken teeth. "Some people are putting incredible forces on their teeth," says Dr. Smith.

2. It's linked to stress

You may be more likely to grind or clench your teeth if you're tense, anxious or frustrated. However, we don't yet fully understand all of the factors that lead to teeth grinding. Drinking caffeine or smoking before bed may be a contributing cause. Teeth grinding is also associated with certain competitive or highly determined personality types. If your teeth are misaligned and your muscles are pulling your jaw into an unnatural position, you may end up grinding your teeth.

3. You can start doing it later in life

Even if you've never been a teeth grinder or clencher, that doesn't mean you'll never become one. Since stress is the main cause of bruxism, you may become a teeth grinder or clencher later on due to unexpected changes and challenges in your life.

4. You may not know you're doing it

Convinced you never grind your teeth? Since it commonly happens while you're sleeping, many people may be unaware of it. "Sometimes they will deny they're doing it, even when they have a lot of damage to their teeth and it's pretty obvious," Dr. Smith says. If you have unexplained facial pain, earaches or headaches, or tenderness around the jaw joint, you could be grinding without knowing it. Often, it's a sleep partner who will complain about being disturbed during the night by the hair-raising sound of constant grinding.

5. Children do it more than adults

Up to 15 percent of kids grind their teeth. One survey puts the figure as high as 38 percent. Does that mean our kids are stressed out? Not necessarily. Children may also grind their teeth when they're coping with earaches or teething, or it may be related to their jaw and tooth growth and development. Kids who drool at night, talk in their sleep or have a psychological disorder are more likely to grind their teeth. Fascinating fact: Bruxism runs in families. But children who grind their teeth usually outgrow it by adolescence.

6. It's treatable

Now the good news: In many cases, no treatment is needed. But if the problem is severe, there are ways to stop the gnashing of teeth at night. A common and very successful approach is a plastic mouth guard, which fits over your teeth and reduces or eliminates damage from unwitting grinding during sleep. It will also ease the associated joint pain. Your dentist can fit you for a guard.

Daytime bruxing is easier to manage because you're more aware of it. If you notice yourself grinding or clenching your teeth, make a point of relaxing your jaw with your mouth closed and your teeth apart. If the habit is related to stress, then it may help to find other ways to cope, like doing yoga or listening to relaxing music.

6 things you should know about vitamin D levels

Figuring out all the factors that can affect your vitamin D level is complicated. You can get the vitamin from food or by taking a supplement, but the most important source is the vitamin D your body makes when sunlight hits the skin. The process by which the body makes vitamin D starts when the skin absorbs rays in the invisible ultraviolet B (UVB) part of the light spectrum. The liver and the kidneys also participate. A number of factors influence a person's vitamin D levels. Here are six important ones.

1. **Where you live makes a difference.** The further away from the Equator you live, the less vitamin D-producing UVB light reaches the earth's surface during the winter. Residents of Boston, for example, make little if any of the vitamin from November through February. Short days and clothing that covers legs and arms also limit UVB exposure.
2. **Air quality can have positive and negative effects on vitamin D levels.** Carbon particles in the air from the burning of fossil fuels, wood, and other materials scatter and absorb UVB rays, diminishing vitamin D production. In contrast, ozone absorbs UVB radiation, so pollution-caused holes in the ozone layer could end up enhancing vitamin D levels.
3. **Use of sunscreen may not affect vitamin D as much as you may think.** Sunscreen prevents sunburn by blocking UVB light. Theoretically, that means sunscreen use lowers vitamin D levels. But as a practical matter, very few people put on enough sunscreen to block all UVB light, or they use sunscreen irregularly, so sunscreen's effects on vitamin D might not be that important. An Australian study that's often cited showed no difference in vitamin D between adults randomly assigned to use sunscreen one summer and those assigned a placebo cream.
4. **Melanin affects skin color and vitamin D production.** Melanin is the substance in skin that makes it dark. It "competes" for UVB with the substance in the skin that kick-starts the body's vitamin D production. As a result, dark-skinned people tend to require more UVB exposure than light-skinned people to generate the same amount of vitamin D.
5. **Being overweight can decrease vitamin D levels.** Body fat sops up vitamin D, so it's been proposed that it might provide a vitamin D rainy-day fund: a source of the vitamin when intake is low or production is reduced. But studies have also shown that being obese is correlated with low vitamin D levels and that being overweight may affect the bioavailability of vitamin D.
6. **Vitamin D production decreases with age.** Compared with younger people, older people have lower levels of the substance in the skin that UVB light converts into the vitamin D precursor. There's also experimental evidence that older people are less efficient vitamin D producers than younger people.

For more information on the benefits of vitamin D as well as advice on making sure you get the proper amount of vitamins and minerals in your diet, buy [Vitamins and Minerals](#), a Special Health Report from Harvard Medical School.

8 Things You Should Know About Electric Cars

By John Voelcker/ [Green Car Reports](#) Posted 05.15.2013 at 12:00 pm [10 Comments](#)

Sometime in the next few weeks, the 100,000th plug-in electric car will be sold in the U.S.

But they're still mostly a mystery to the average new-car buyer, and there are a few key principles that get shared over and over again. Here they are, boiled down for easy consumption: eight things you need to know about electric cars.

1. Electric cars cost more to buy than gasoline cars of the same size.

The least expensive plug-in electric car on the market, the 2013 Smart ForTwo Electric Drive, costs twice as much as the entry-level gasoline ForTwo. A 2013 Nissan Leaf electric car starts at \$28,800 (before incentives), while a similarly-sized Sentra starts at \$15,990.

2. Electric cars cost a lot less per mile to operate.

If you pay \$4 a gallon for gasoline, a 25-mpg gas car needs \$16 in fuel every 100 miles. An electric car uses 75 cents to \$6.50 in electricity to cover that same 100 miles, depending on your local rate per kilowatt-hour

3. Some plug-in cars have engines as well; some don't.

When people say "electric car," they often think of pure battery-electric vehicles like the Nissan Leaf or Tesla Model S. But there's another category of cars that have both a plug to recharge a battery pack from the wall and an engine as well. Sometimes they're adapted from hybrids—that's the path taken by Ford, Honda, and Toyota—and other times they are dedicated vehicles, like the Chevrolet Volt. Most owners of those cars make every effort to drive as many miles as possible on electric power alone—but they have the security of knowing their car won't be immobile at the side of the road—unless they both deplete the battery and run out of gas.

4. Electric cars are much nicer to drive than you think.

We're pretty much past the, "Oh, they're all golf carts" stage. But a lot of drivers don't (yet) know that electric cars are very quiet (no engine or transmission noises when running on battery power), as well as surprisingly torquey. Their motors produce maximum output from 0 rpm, so acceleration away from a stop is strong and smooth. Drivers like that. And the fact that electric cars are a nicer driving experience may be their secret weapon once they arrive in volume.

5. Range anxiety abates.

It's entirely normal for drivers to worry as they see the number of available miles on a battery electric car ticking down toward zero. But as experienced electric-car owners will tell you, in general you drive fewer miles each day than you think—and over time, you get comfortable that a fully charged electric car really can deliver that number of miles, reliably, over and over and over.

6. Temperature matters.

Electric-car batteries, like people, are happiest at temperatures of around 70 degrees Fahrenheit.

Extreme heat—as in [Phoenix, Arizona](#), where summer road surfaces can reach 150 degrees—and extreme cold (as in the northern third of the U.S. and most of Canada) can reduce range.

Add to that energy-sucking heaters (or, to a lesser extent, air conditioning) and you can reduce your range by a third in very cold weather. Luckily, California is expected to buy more plug-in electric cars than the next five states combined—and that state has weather that's pretty close to perfect for electric cars much of the year.

7. Yes, there is a long tailpipe—but electric cars emit less.

This isn't the place to go through the math, but two separate studies have shown that driving a mile on grid power emits less carbon dioxide than a mile in a 25-mpg car. And in many states, it's even better than a mile in a 50-mpg Toyota Prius hybrid—the most fuel-efficient car sold today.

8. Yes, you can take them through car washes just fine; deep puddles, too.

Chevrolet even produced a video showing the water trough test it performs on the Chevrolet Volt range-extended electric car to ensure its electric systems stay neatly sealed against any water incursion.