# Holmfield Chemist

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## Opening Times

Monday, Tuesday, Thursday, Friday 9am - 6pm
Wednesday 9am - 5pm
Saturday 9am - 1pm

## Your Healthy Living Advice Newsletter for April 2015

1. What are energy drinks?
2. Name two makes of energy drinks?
3. What are the main ingredients they contain?
4. What percentage of adolescents drink them in the EU?
5. How much caffeine do they contain?
6. How much caffeine does a cup of coffee contain?
7. What is the evidence that the other ingredients have further benefits?
8. Why are people concerned about their use?
9. When do adverse affects associated with high caffeine consumption begin?
10. What are the affects of high caffeine consumption?


**Answers on the bottom of page two**

### Energy Drinks

Energy drinks are an early subset of the soft drinks industry. Pepsi was first marketed as an energy booster while Coca-Cola's name was derived from its ingredients (both stimulants)- coca leaves and kola nuts (a source of caffeine). Fresh coca leaves were replaced by spent ones in 1904 because of concerns over the use of cocaine in food products and a federal law suit pressured The Coca-Cola Company to reduce the caffeine content by 1916.
These developments bought an end to the first wave of energy drinks but in 1920 Lucozade was introduced in the UK as a hospital drink to "aid the recovery" of patients. The modern energy drink became fashionable when Red Bull was introduced by an Austrian entrepreneur.
However there has been a lot of media cover recently about the amount of energy drinks that the younger population is consuming. So let's take a closer look at the subject.


### What are energy drinks?

There is no clear definition of energy drinks but generally they are considered to be drinks marketed as helping to improve physical and mental performance. So they are often taken by adolescents studying for exams or wanting to stay up all night to enjoy themselves.
Their main ingredients are caffeine, taurine (an amino acid) and vitamins, carbonated water and high fructose corn syrup (in the non diet formulas). There are numerous versions, the most popular being Red bull, Monster and the supermarkets own brands. About 68% of adolescents drink them in the UK.

**P.T.O**

Because the level of caffeine per 100ml is now limited by law, many companies have made larger cans to compensate but some people prefer to take their energy drink in a more concentrated form. So energy shots were developed which contain the same ingredients but in a more concentrated form as a 50ml container.

## Health Concerns

The World Health Organisation has done a review on the health risks and policies related to energy drinks because of concerns raised by the scientific community and the general public. They found that the main risks are associated with the high levels of caffeine they contain. There is no evidence that any other ingredients have any beneficial effect.

A 240ml cup of coffee on average contains 100mg of caffeine whereas an "energy drink" can contain anything from 6-242mg per serving. It is generally agreed that consuming more than 400mg of caffeine a day can lead to palpitations, nervousness, irritability, high blood pressure, nausea, vomiting and convulsions.

Other risks associated with energy drink consumption include:


- Type 2 diabetes as high levels of caffeine reduces insulin sensitivity
- Late miscarriages, low birth weight and still births
- Neurological and cardiovascular system affects in children and adolescents
- Sensation seeking behaviour especially when taken with alcohol
- Use and dependence on other harmful substances
- Poor dental health
- Obesity

## Restrictions

For these reasons energy drinks are not recommended for teenagers, pregnant women and women who are breast feeding. From 2014 all energy drinks that contain more 150mg/l of caffeine have to be labelled "High caffeine content. Not recommended for children, pregnant or breastfeeding women" and their caffeine content must be expressed in mg/100ml.

## Mixing of energy drinks with alcohol

Another major concern with energy drinks is their use as mixers with alcohol especially in night clubs.

The problem with this is that they can mask the influence of alcohol and a person may misinterpret their level of intoxication.

In fact people who drink mixers are more likely to drink more alcohol and are more likely to suffer alcohol related consequences such as injury or being an intoxicated driver, even after adjusting for the number of drinks they have consumed.

Answers: Q1. They are non alcoholic drinks which are marketed as mental and physical stimulants. Q2. Red Bull, Monster, Supermarkets own brand. Q3. Caffeine, taurine and vitamins, carbonated water and high fructose corn syrup (non-diet versions). Q4. 68%. Q5. Between 6-242mg per serving . Q6. 100mg/ 240ml. Q7. None. Q8. There is a possible link with other substance abuse, health affects mainly due to high caffeine content and mixing with alcohol. Q9. At levels greater than 400mg. Q10. Palpitations, nervousness, irritability, high blood pressure, nausea and vomiting, convulsions