



Pre-heated birthing pools and risk of Legionnaires' disease

Introduction

Giving birth in water has been recognised as an effective form of pain relief during labour.¹ Although Legionnaires' disease among pregnant women and their babies following water births is extremely rare, this leaflet provides pregnant women with information to minimise the risk to themselves and their babies.

Legionnaires' disease has been associated with the use of a certain type of birthing pool

In 2014, a newborn baby in England was found to have Legionnaires' disease following a home birth in a pre-heated birthing pool. The birthing pool had been filled with hot water two weeks prior to the expected date of delivery, and the water was kept warm during this extended period using a heater and re-circulation pump. This is an uncommon use of a birthing pool and generally not recommended.

Investigations found Legionella bacteria in samples taken from the birthing pool. As a result, Public Health England and NHS England have issued warnings to avoid using heated birthing pools that have been filled prior to the expected date of delivery and where warm water temperature has been maintained by the use of a heater and circulation pump.²

Only certain types of birthing pool are considered high risk

Traditional birthing pools at home that are filled with water once the pregnant woman goes into labour are considered to be safe, as they come with disposable liners and the water is not kept warm using a heater. These pools are only used for a relatively short time, and not long enough for Legionella to multiply. Fixed birthing pools in NHS units are also considered safe as they are subject to stringent infection control procedures to prevent Legionella growing in the water and system.

Pregnant women should only avoid using heated birthing pools that have been filled in advance of the expected date of delivery and where water temperature has been maintained during that time by the use of a heater and circulation pump.

Legionnaires' disease

Legionnaires' disease is a serious and sometimes fatal lung infection usually caused by inhaling water droplets containing the Legionella bacteria. The time it takes between being exposed to the bacteria and the start of symptoms could be as short as 2 days). Initial symptoms include flu-like symptoms followed by a cough, shortness of breath and chest pains.

Anyone can get Legionnaires' disease. However, certain groups of people are more vulnerable than others:

- men are at a higher risk
- those who are 50 years or older
- those with an underlying medical condition or pre-existing lung condition
- those with a weakened immune system, eg people with cancer or HIV
- those who smoke or drink alcohol heavily

Legionnaires' disease in babies and children is extremely rare.

Legionella bacteria

Legionella bacteria are usually found in water, such as ponds, rivers, and lakes. Sometimes, they may also be found in water systems in buildings. They can also be found occasionally within the home, for example, in taps and showers as well as in spa pools.

The Legionella bacteria grow when water temperatures are between 20-45°C, where nutrients, such as rust, sludge, scale, sediment and algae are available, and also where water is stagnant in the water system (eg, if a shower or tap is not regularly used).

Further advice on use of a birthing pool

Pregnant women are advised to discuss with their midwives if they are planning to use a birthing pool at home and have any concerns. The midwife will be able to talk through the birth plan and give advice on how best to keep both mum and baby safe.

References

1. <https://www.nice.org.uk/guidance/cg190/chapter/1-recommendations>
2. <https://www.england.nhs.uk/2014/06/psa-legionella/>

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