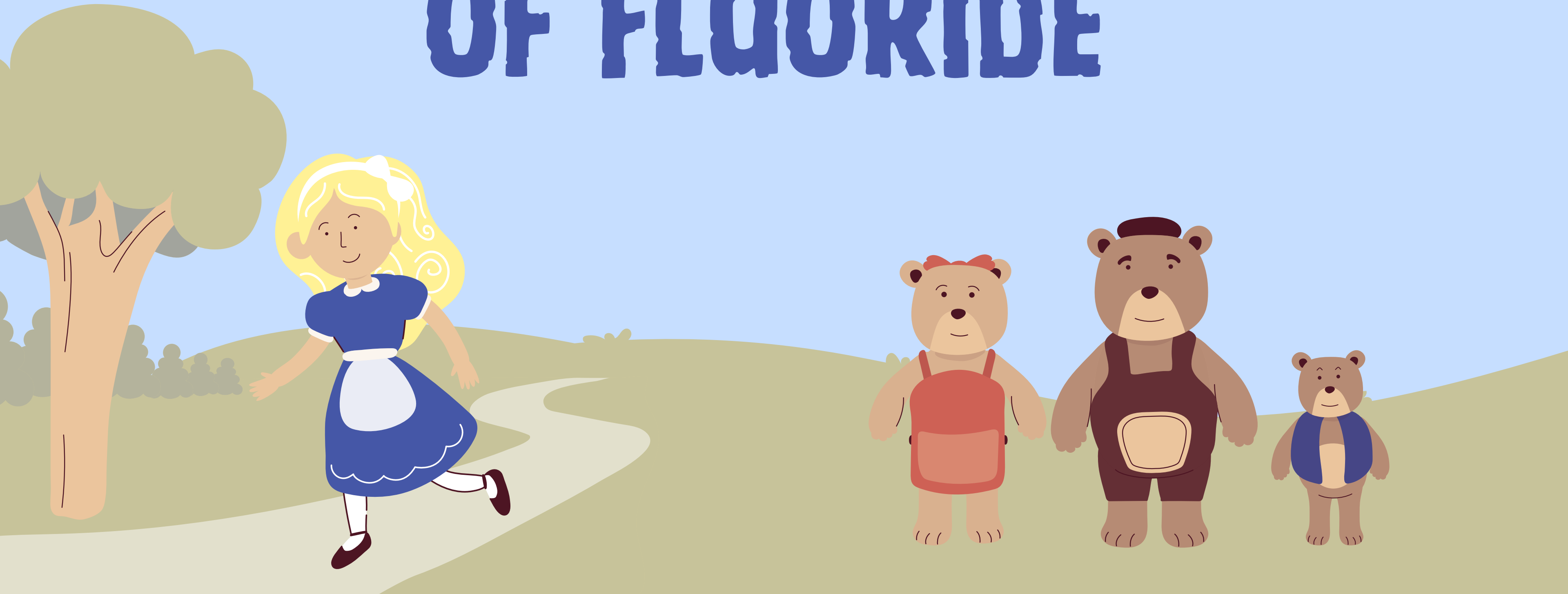


THE GOLDILOCKS EFFECT OF FLUORIDE



Much like Goldilocks searching for the perfect porridge in the story of the Three Bears, public health experts have spent decades finding the "just right" level of fluoride for safe and effective cavity prevention.



Too little fluoride, and cavities run rampant.

Too much fluoride, and dental fluorosis or other health problems can occur.

But when the amount is just right, fluoride strengthens teeth and protects smiles without unwanted side effects.



In some parts of the world, natural fluoride levels in drinking water are much higher than recommended.

Levels of 2.0 mg/L or more can increase the risk of dental and skeletal fluorosis.

This is why organizations like the World Health Organization recommend controlling and monitoring fluoride levels in water supplies.



PAPA BEAR (TOO MUCH)

In places where fluoride is absent or very low, like non-fluoridated communities, children and adults experience significantly higher rates of cavities.

Without fluoride's protective benefits, tooth decay can become widespread and lead to expensive dental treatments and other health complications, even death.

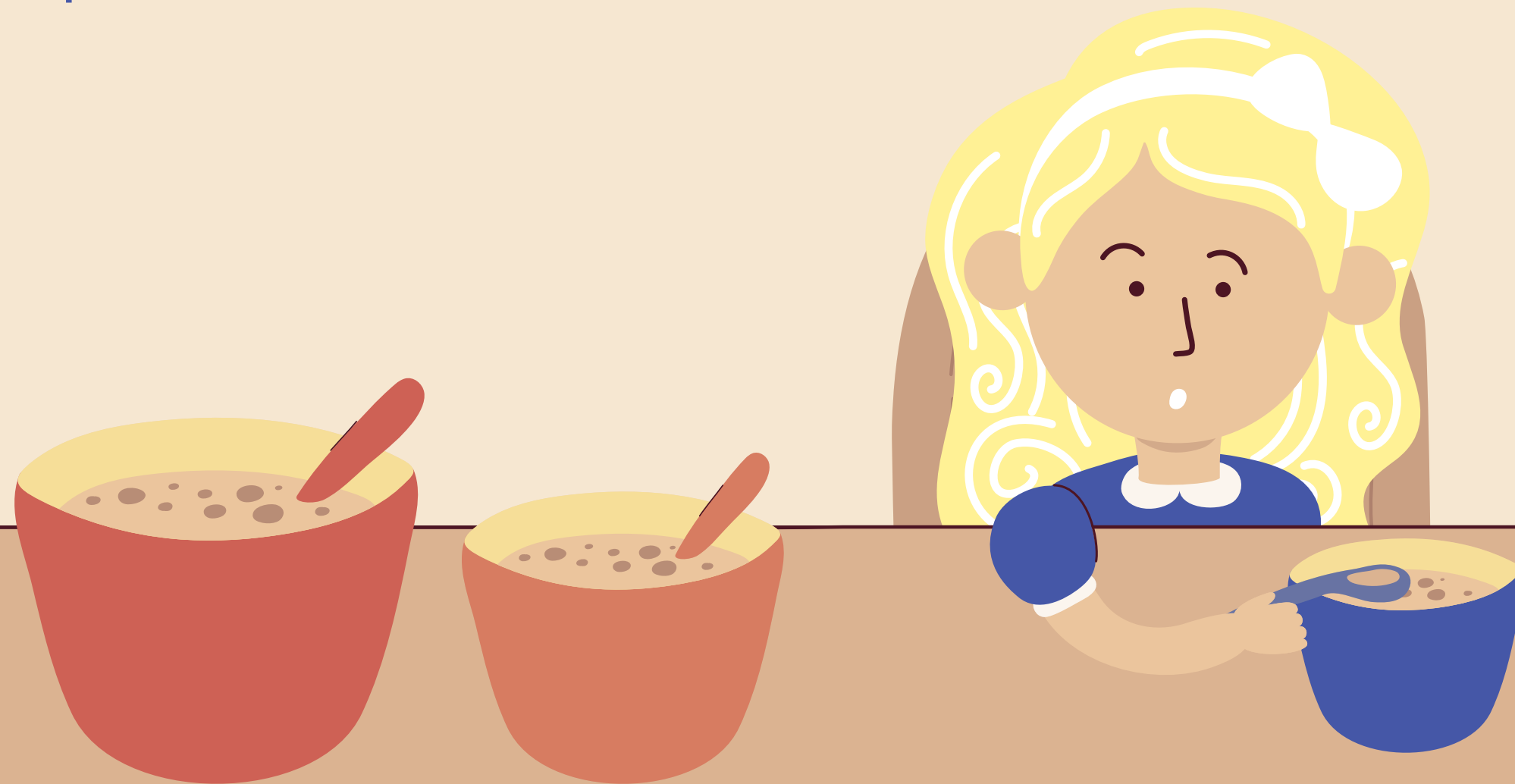


MAMA BEAR (TOO LITTLE)

After decades of research, public health experts have determined that **0.7 mg/L (or .7 parts per million)** is the "just right" amount of fluoride in water.

At this level, fluoride provides maximum protection against tooth decay while minimizing the risk of dental fluorosis.

In 2015, the U.S. Public Health Service adjusted its recommendation to this single level, reflecting updated science and modern fluoride sources like toothpaste.



**BABY BEAR
(JUST RIGHT)**

WHY "JUST RIGHT" MATTERS: THE GOLDBLOCKS EFFECT

Balanced Benefits:

- Fluoride at 0.7 mg/L strengthens enamel, repairs early signs of tooth decay, and makes teeth more resistant to cavities—all without exceeding safe exposure levels.

The Modern Context:

- Unlike in the early days of water fluoridation, people today have access to fluoride in toothpaste, mouth rinses, and dental treatments. This is why the "just right" level in community water supplies was updated in 2015 to reflect modern fluoride exposure.



WHAT HAPPENS WITHOUT THE "JUST RIGHT" LEVEL?

No Fluoride (Too Little):

- Non-fluoridated communities often see higher rates of cavities, especially in children. This leads to more missed school days, costly dental treatments, and oral health disparities.

Excessive Fluoride (Too Much):

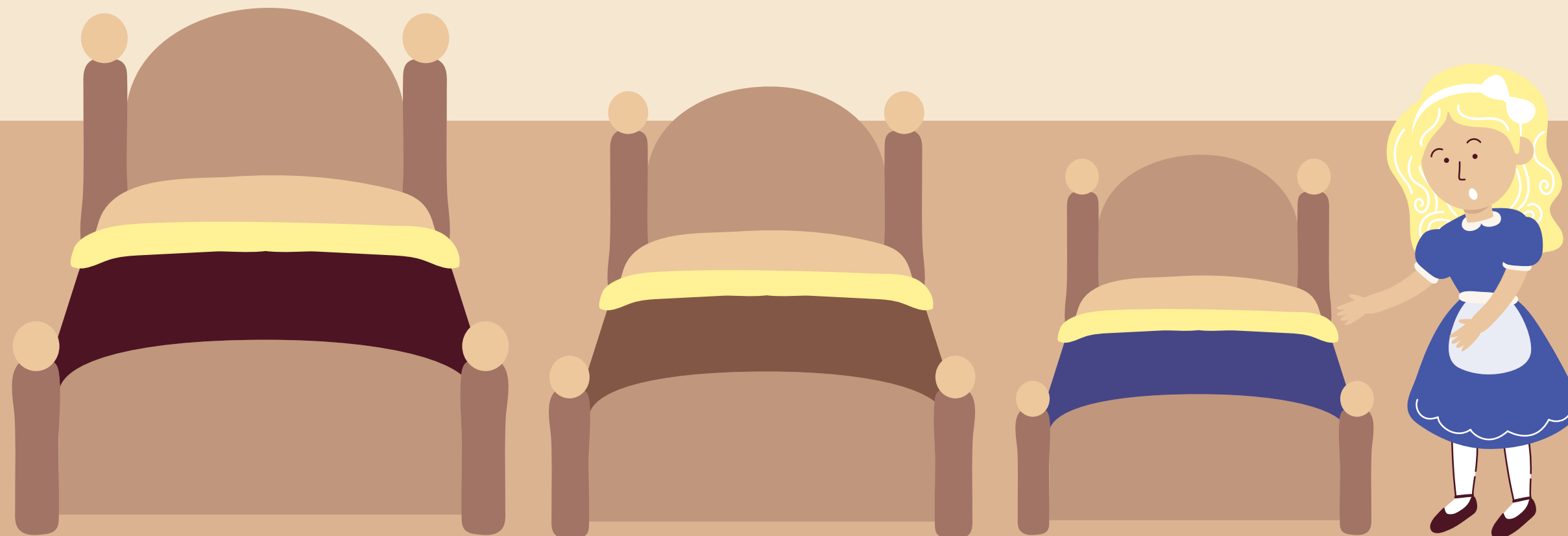
- When natural fluoride levels exceed 2.0 mg/L, fluorosis (cosmetic and harmless white spots on teeth) can occur, and a recent study found a possible connection to more adverse effects that need more research. Regulating fluoride levels ensures communities avoid unnecessary exposure.



LESSONS FROM GOLDBLOCKS: MONITORING AND ADJUSTING

The journey to finding the "just right" fluoride level mirrors Goldilocks' careful testing of the porridge, chair, and bed. Through **decades of research and adjustments**, public health experts **continue to monitor and fine-tune** fluoride recommendations to meet modern needs.

- 2015 Update:
 - The U.S. adjustment to 0.7 mg/L reflects the growing access to fluoride from multiple sources, ensuring the balance remains perfect—just like Baby Bear's porridge.



The story of the Three Bears reminds us that **balance is key**—too much or too little fluoride can cause problems, but at the "just right" level, fluoride is a powerful ally for healthy teeth.

By sticking to evidence-based recommendations and monitoring fluoride levels, communities can ensure everyone benefits from a "just right" amount of fluoride to protect their smiles.

