



BREAK THE CHAIN

IT'S THE LITTLE THINGS...
UNTIL IT'S EVERYTHING.

A BUTTERFLY EFFECT SAFETY CHALLENGE

- RECOGNIZE** small risks
- IDENTIFY** opportunities to intervene
- DISCUSS** real-world scenarios
- STRENGTHEN** our safety culture

Small Actions Today.
Safer Tomorrows.



THE BUTTERFLY EFFECT SMALL CHANGES. BIG CONSEQUENCES.

WHAT IS IT?

The Butterfly Effect is a concept from Chaos Theory. It shows how a small, seemingly insignificant change in one part of a complex system can lead to massive, unpredictable differences later on.

Meteorologist Edward Lorenz discovered this in the 1960s while running weather models. A tiny change in a starting number completely altered the forecast. In complex systems, small things matter.

"A butterfly flaps its wings in Brazil and sets off a tornado in Texas."

WHY IT MATTERS IN OUR WORKPLACES

Our workplaces are complex systems. People, equipment, processes, and environments all interact. A small issue can combine with other conditions and grow into a serious incident.

KEY TAKEAWAY:

You don't have to fail "big" to have a big failure. You just have to ignore the small things long enough for the chain reaction to start.



See it.
Think it.
Stop it."

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REAL-WORLD EXAMPLE ONE LITTLE THING. A BIG RESULT.



WHERE COULD YOU HAVE BROKEN THE CHAIN?

There isn't just one right answer. The earlier we intervene, the more options we have."

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BUILD THE CHAIN YOUR TURN. WHAT COULD HAPPEN?



Start with one small event. Then think through the possible chain reaction. Identify where you could intervene.

- 1 The Little Thing (Starting Event)
- 2 Then What? (Next Event)
- 3 And Then? (Next Event)
- 4 What Changes Because of That?
- 5 Possible Serious Outcome

DISCUSSION:

- What safeguards could prevent this?
- How can we make our system more resilient?

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Safer Tomorrows.

FIND THE BUTTERFLY

READ THE SCENARIO. SPOT THE LITTLE THINGS.

It's 2:15 p.m. Production is behind schedule. An operator notices a small amount of fluid beneath a machine but assumes maintenance already knows about it. A pallet has been temporarily staged near the area because the normal location is full. A forklift operator approaches carrying a load that partially blocks forward visibility. Another employee steps around the pallet and into the aisle.

STOP THE STORY.

- 1 What little things did you notice?
☐ _____
☐ _____
☐ _____
- 2 Which one would you address first? Why?

- 3 What could happen if nobody intervenes?

Different Perspectives.
Stronger Outcomes.



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FRAGILE vs. RESILIENT SYSTEMS

FRAGILE SYSTEM

Small problems can line up and lead to a major incident.



RESILIENT SYSTEM

Safeguards break the chain before it becomes a bigger problem.



Strong systems don't rely on luck. They rely on people who notice, speak up, and take action."



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FACILITATOR GUIDE

10-15 MINUTE TOOLBOX TALK

Small Discussion.
Big Impact.

- 1 **INTRODUCE (2 MIN)**
 - Show the Break the Chain visual.
 - Ask: "What does the butterfly effect mean to you?"
- 2 **EXPLAIN (2 MIN)**
 - Briefly share the concept and why small things matter.
 - Emphasize: our goal is not to predict every outcome, but to recognize how small issues can combine.
- 3 **ACTIVITY (7-10 MIN)**
 - Use the Find the Butterfly scenario or create your own.
 - Discuss where the chain could be broken.
 - Encourage multiple answers and different perspectives.
- 4 **WRAP UP (2 MIN)**
 - Ask: "What is one small thing you will pay more attention to?"
 - Reinforce reporting, stop-work authority, and support.

FACILITATOR TIPS:

- Keep it conversational.
- Use real examples from your facility.
- Focus on learning, not blame.
- Reinforce positive actions and reporting.
- Adjust timing to fit your team.



CUSTOMIZE FOR YOUR WORKPLACE

MAKE IT YOURS.

Add logo

Use this space to add your site-specific information, or replace with a QR code to link to your procedures, reporting system, or safety resources.



ADD YOUR QR CODE HERE
(Link to site procedures, reporting, or training)

IMPORTANT CONTACTS

Emergency: _____

Safety/EHS: _____

Near-Miss Reporting: _____

Supervisor/Manager: _____

Quick-reference aid only. Follow your employer's procedures, training, SDSs, and applicable regulatory requirements.

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Until It's Everything.