HOT COFFEE BURN

Debate the Solutions, Not the Cause

When a 79-year-old woman spilled a cup of McDonald's coffee in her lap and sued McDonald's, the case quickly became famous. More than 15 years later, it's still presented by some as a case for legal reform to stop frivolous lawsuits and defended by others as an important victory for victims of powerful corporations. But regardless of the legal implications, this famous case teaches a lesson about how to effectively solve problems.

The Basic Facts

The injured woman was the passenger in a car at a McDonald's drive-thru. She received a cup of hot coffee, sealed by a lid, with an estimated temperature of 180 degrees F.

While attempting to remove the lid and add cream and sugar, she spilled the contents of the cup into her lap. She was wearing sweat pants that reportedly held the hot liquid against her skin for over 90 seconds.

She suffered severe, third-degree burns on her thighs, hips, and groin that required extensive hospital treatment, including skin grafts.

McDonald's defended its policy of serving coffee at a temperature of 180 degrees or greater by arguing that both coffee experts and market research showed that coffee should be served at this temperature. However, McDonald's had received 700 complaints of coffee burns (of varying severity) over the past 10 years.

Evidence: Despite past complaints, policy was not changed

Evidence: Rapidly expanding competitors also served very hot coffee

What Problem(s)

Scalded by hot coffee

When

Date: February 27, 1992

Where

Physical Location: McDonald's drive-thru

Unit, Process, Equipment: Coffee

Work Being Done: Adding cream and sugar

Impact to the Goals

Safety

Extensive 3rd degree burns

Possible Solutions:

Serve cooler coffee

Recommended by coffee makers

More coffee aroma and flavor

Characteristics of coffee oils

Temperature of water (180°F)

Policy: Serve coffee 180-190°F

Taste more important than burn risk

Evidence: Despite past complaints, policy was not changed

Competition from other stores

Evidence: Rapidly expanding competitors also served very hot coffee

Possible Solutions: Change lid to facilitate adding condiments

Possible Solutions: Offer cooler coffee at drive-thru

Possible Solutions: Server adds condiments

Spilled coffee in lap

Removing lid

Adding cream and sugar

Sitting in car

Using drive-thru

No cup holders

Sweat pants worn

Hot water trapped against skin for 90 seconds

Sweat pants worn

Didn't remove sweat pants for 90 seconds

Unaware of severity of burn?

An Accurate Root Cause Analysis

What

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In an effective root cause analysis, the question is not, "Who's right?" but rather, "What were all of the causes?" Hot water must remain in contact with the skin for a certain amount of time to cause third-degree burns. The analysis should explain exactly how the hot water came in contact with the skin, so that the blame can be directed away from McDonald's policies, but in order to expand the analysis and reveal the most effective ways of preventing the injury in the future.

Every cause presents the possibility of a new set of solutions that might mitigate the risk better, or more cheaply, or more easily. What possible solutions can you find?

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What is the cause of a burn by hot coffee?

(A) Coffee was 180 degrees F

(B) Person spilled the coffee

(C) Both A and B

Answer: C Both were required

A common approach to solving a serious injury or other problem is to first look for what bears the responsibility for causing the problem. In other words, what is to blame? When the injured woman sued McDonald's, the lawsuit claimed that McDonald's defective (unsafe) coffee was the cause of her injuries. A root cause analysis showing why the injury occurred might look like this:

The above Cause Map may be accurate, but McDonald's would argue that the high temperature of the coffee is required to give the coffee the flavor demanded by the customers, and the real cause of the burns was spilling the coffee into the lap. Who is right?

Placing the Blame

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