

# HOT COFFEE BURN

## Cause Map

### 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.

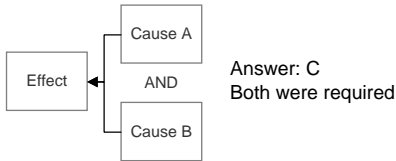
She suffered severe, third-degree burns on her thighs, hips, and groin that required extensive hospital treatment, including skin grafts.

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.

### Cause-and-Effect Quiz

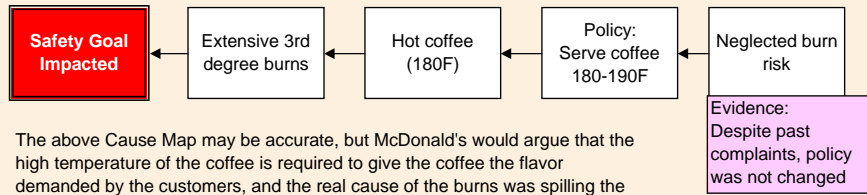
What is the cause of a burn by hot coffee?

- (A) Coffee was 180 degrees F
- (B) Person spilled the coffee
- (C) Both A and B



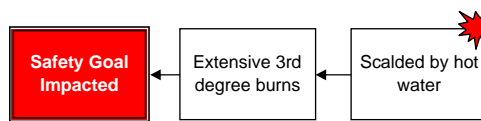
### Placing the Blame

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?

### An Accurate Root Cause Analysis



### What When Where

Problem(s)	Scalded by hot coffee
Date	February 27, 1992
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
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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, not 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?

For a free copy of our Root Cause Analysis Template in Microsoft Excel, used to create this page, visit our web site.



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