



## Root Cause Analysis

Root cause analysis is a technique used to identify many possible causes for an effect or problem. The fishbone diagram is one method of conducting a root cause analysis which sorts ideas into categories. It can be used to structure a brainstorming exercise and encourage free thinking.

### How to Conduct a Root Cause Analysis

1. Bring together the individuals responsible for implementing the process.
2. Draft a problem statement (effect). On a writing surface for the group to see, write the statement on the far right, draw a box around the statement, and draw a horizontal arrow running to it.
3. Brainstorm the major categories of causes of the problem. For example, financial resources, staffing, time. Write the categories of causes as branches from the main arrow leading to the problem statement.
4. Brainstorm all the possible causes of the problem. Record them as a smaller branch for the larger category. Some causes can be a part of more than one category.
5. Continue brainstorming and writing sub-causes in each category. Many layers of branches indicate causal relationships.
6. Review the diagram for completeness. Look at the empty spaces where causes appear to be fewer than others.

### Example of a Root Cause Analysis (Fishbone Diagram)

This fishbone diagram was drawn by a cath lab team to try to understand the source of delays in patient throughput in the cath lab. The team used six relevant headings to prompt ideas. Layers of branches show thorough thinking about the causes of the problem.

