



Root cause analysis and the 5 whys

As a health and safety “detective”, you may be trying to connect a symptom to a hazard. Or you may be asking if you have the “real problem” when you see a hazard. For prevention to be effective, the question really is:

“What problem is the committee trying to solve or address?”

Root cause analysis is one way to “get to the bottom” of an issue.

To find the **root cause(s)**, the 5 whys is an important tool. The technique came from the Japanese “total quality management” approach. Others talk about using “But why?”.

Here’s how it works. Start with a symptom or hazard. Ask why it occurs; then take the answer and ask why that occurs. Do it up to five times;

you may even end up back at the original symptom or hazard. Then you likely have the reasons behind the symptom or hazard - and the problem(s) that the committee needs to tackle. In some cases, the causes may be not all be health and safety issues. If that happens, clearly define the health and safety problem in front of you and figure out how to pass along the cause(s) that someone else needs to address.

For example, more incidents may be reported on the evening shift than on days. That is your symptom or starting point. The chart below shows how asking “Why?” helps get to the root cause or causes. Each “because ..” answer becomes the problem” for the next “Why?”.

The steps	The “problem”	Why (is this happening)?
Starting point - the symptom or hazard	More incidents occur between 7 and 11 p.m. on the evening shift.	Because ... the shift changes at 3:30 and employees from the day shift train new workers from 4 to 7 p.m.
#2	The shift changes at 3:30 and employees from the day shift train new workers from 4 to 7 p.m.	Because ... the more experienced employees work the day shift, and they do the training.
#3	The more experienced employees work the day shift, and they do the training.	Because ... new workers are hired onto the evening shift.
#4	New workers are hired onto the evening shift.	Because ... workers with more seniority are promoted to day shift.
#5	Workers with more seniority are promoted to day shift.	Because ... there are few experienced employees on the evening shift.

There’s a blank form on the next page to use for your own analysis. Print off as many copies as you need.



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The steps	The "problem"	Why (is this happening)?
Starting point - the symptom or hazard		Because ...
#2		Because ...
#3		Because ...
#4		Because ...
#5		Because ...

