

Your gut bacteria could alter how well your chemotherapy treatment works

Researchers from the UK have just reported that the gut microbiota plays a role, both directly and indirectly, on the toxicity and efficacy of chemotherapy.

It's a complicated process, but one that may eventually be exploited for the benefit of cancer patients receiving chemotherapy.

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[The researcher from the] [Department of Surgery & Cancer at Imperial College London](#) use the acronym “TIMER” to describe key mechanisms in gut bacteria.

T Is for Translocation

In translocation, both beneficial and disease-causing bacteria are moved through the gut into the blood where they can affect the whole body.

I Is for Immunomodulation

Several good gut bacteria help the immune system work better in response to tumors. *Lactobacillus*, for example, can help signal the accumulation of immune cells that fight tumors.

M Is for Metabolism & E Is for Enzymatic Degradation

Sorivudine, an antiviral drug, is sometimes given with chemotherapy drug 5-fluorouracil. After the death of 16 patients in Japan, it was discovered that these two drugs can cause a fatal drug-to-drug interaction—and it's due to bacterial enzymes.

R Is for Reduced Diversity

Some chemotherapy drugs, especially methotrexate, can reduce beneficial bacterial like *Firmicutes*, *Actinobacteria*, *Proteobacteria*, *Streptococci*, and *Bacteroides*.

[The study can be found [here](#).]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: How Gut Bacteria Can Make Chemo More Effective

For more background on the Genetic Literacy Project, read [GLP](#) on Wikipedia.