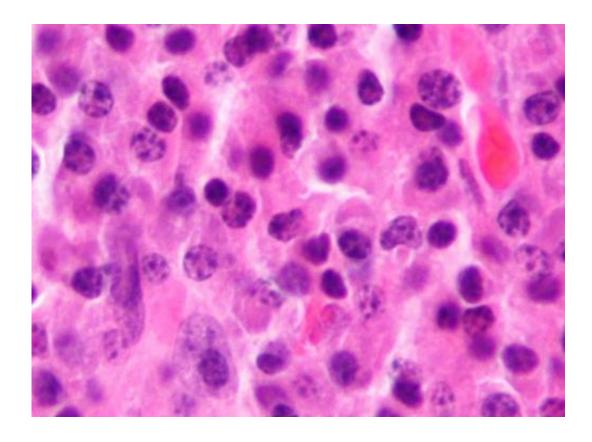


## Advances in multiple myeloma treatment

March 15 2024, by Jason Howland, Mayo Clinic News Network



Micrograph of a plasmacytoma, the histologic correlate of multiple myeloma. H&E stain. Credit: Wikipedia/CC BY-SA 3.0

March is Myeloma Awareness Month. Multiple myeloma is a blood cancer that most often occurs in people over age 45. It's the second-most common blood cancer and the most common blood cancer in Black people.

Right now, there is no cure for the disease. But as Dr. Joselle Cook, a



Mayo Clinic hematologist, explains, recent advances in treatment are helping people live longer. And as multiple <u>myeloma</u> research continues, a cure may someday be on the horizon.

Multiple myeloma is a cancer that forms in a type of white blood cell called a plasma cell that builds up in bone marrow.

"Some of these <u>plasma cells</u> develop mutations over time and become abnormal and produce an abnormal protein. We call it an immunoglobulin, or in our world, we call it a monoclonal protein. And so that can cause damage over time," says Dr. Cook.

The damage caused by multiple myeloma can lead to anemia, bone pain, frequent infections and <u>kidney failure</u>.

"The treatment involves ... we call it plasma cell directed therapy," says Dr. Cook. "It's treatments that are specifically directed at the <u>immune</u> <u>system</u>. So it's usually a combination of three or four drugs."

Other advances in treatment include <u>bone marrow transplant</u>, in which a person's own stem cells are infused after high-dose chemotherapy to rebuild and regenerate healthy bone marrow.

"We've seen new therapies like CAR-T, or chimeric antigen receptor-T cell therapy, where we're taking people's T cells, we're engineering them to specifically recognize a myeloma cell," says Dr. Cook.

Because of advances like these, the prognosis for patients with multiple myeloma continues to improve.

"Several years ago, people would say that the survival was three to five years. And I would say now, median or average survival is about 10 years or even longer," says Dr. Cook. "Hopefully, we can extend the expected



survival beyond 20 years and maybe eventually find a cure in my lifetime, I hope."

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