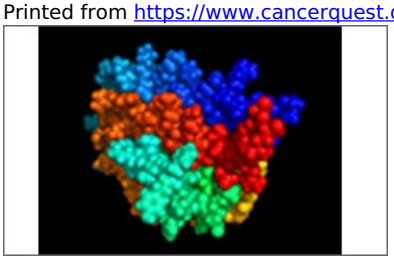
Darbepoetin Alfa

Printed from https://www.cancerquest.org/patients/drug-reference/darbepoetin-alfa on 11/19/2026



Brand name: Aranesp®
IUPAC: Human erythropoietin
FDA approval: Yes
Manufacturer Link
Usage:

Chemotherapy drugs attack all fast dividing cells, both cancerous and normal, such as the gastrointestinal tract and bone marrow stem cells. Red blood cells are formed in bone marrow, and with its depletion anemia (low red blood cell count) can arise as a common side effect of chemotherapy. Depletion of red blood cells results in a decrease in the body's ability to transport oxygen in the blood from the lungs to other cells of the body. Insufficient oxygen supply to the body's tissues prevents the them from functioning efficiently and can result in fatigue that can hinder daily activity. Darbepoetin alfa (Aranesp®) is used to treat this anemia that may arise due to chemotherapy treatment.1

1 Aranesp.. Prescribing Information. Amgen Incorporated. 2015. [http://www.aranesp.com]

Mechanism:

Darbepoetin is a recombinant (cloned) version of a naturally occuring protein, erythropoietin. The drug stimulates bone marrow cells so that production of red blood cells increases. The improved replacement of red blood cells results in an improved energy level. Darbepoetin alfa is closely related to erythropoietin, the substance in the body that naturally stimulates red blood cell production.

Side effects:

Side effects are usually mild but may include: fatigue, swelling, nausea, Vomiting, diarrhea, fever and shortness of breath.1

1 Aranesp.. Prescribing Information. Amgen Incorporated. 2015. [http://www.aranesp.com]