

new evolutionary paths

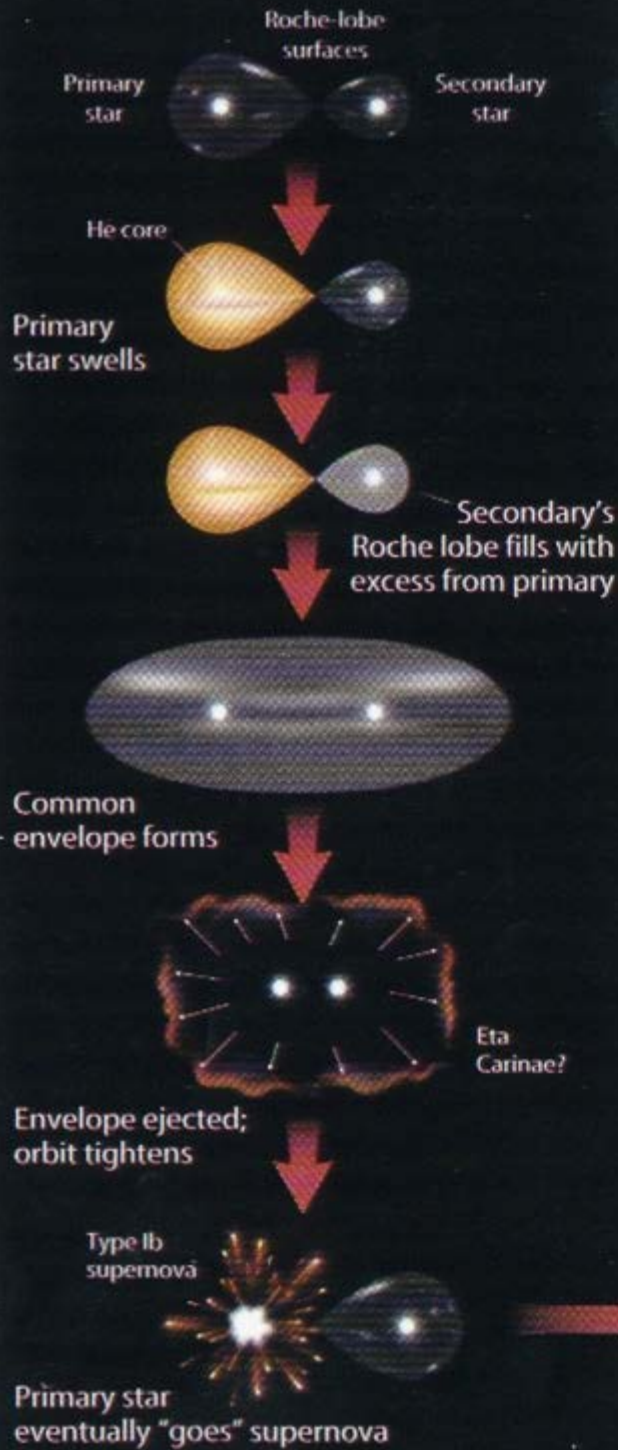


Being in a close binary can dramatically alter the way in which a star lives and dies. This is because of mass transfer between the two stars, which leads to a rich variety of exotic phenomena, as shown in the evolutionary sequences below. (Note that these are image maps, so it is possible to click on items of interest for additional information).



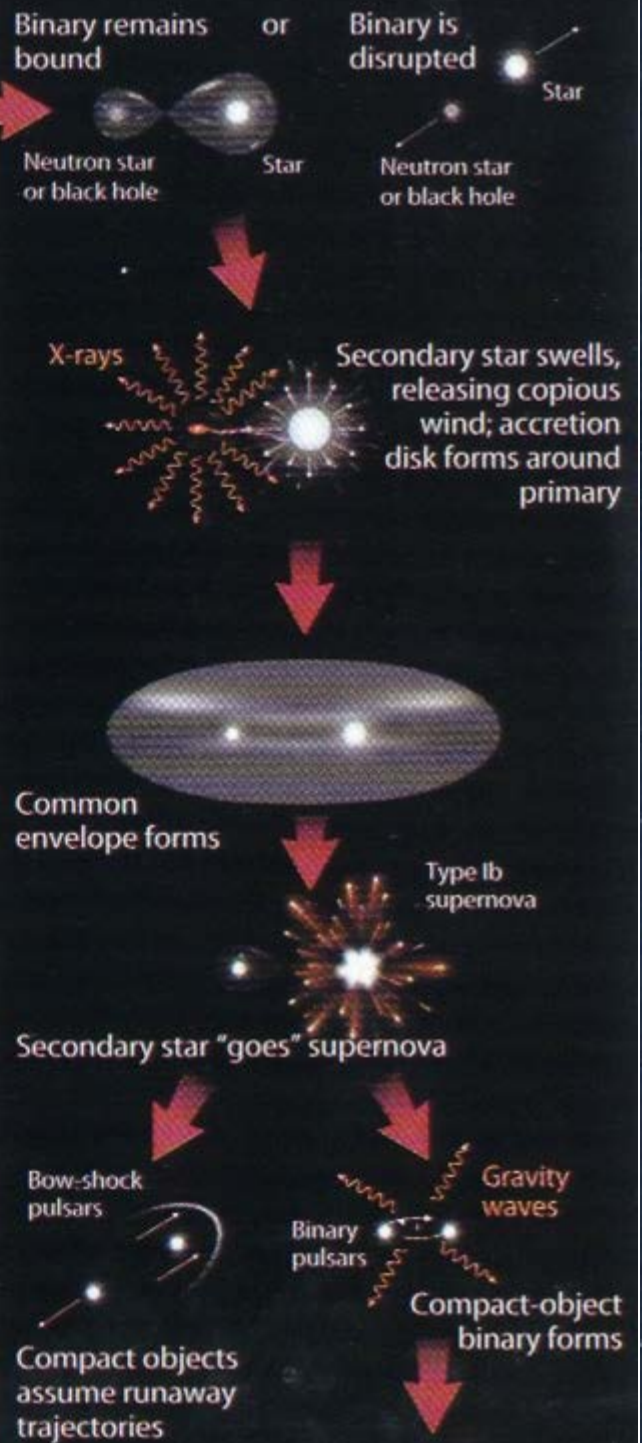
The fate of a close binary system is largely dictated by the initial masses of the two stars. The evolutionary sequences can be split into two distinct branches. The first branch involves binaries in which the components are initially more massive than about 11 Suns, as shown below.

Massive Stars Paired



Not to scale

The Birth of an X-ray Binary



Not to scale

Black hole?

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The second branch involves binaries in which the components are initially less massive than about 11 Suns, as shown below.

Low-Mass Binaries

