

Table 8.3

CI Types, Their Degrees of Freedom, and Specific Formulas

<i>CI Type</i>	<i>df Formula</i>	<i>Specific CI Formula</i>
Estimating μ	$df = N - 1$	$\begin{aligned} \text{UB} &= M + (t_{\text{CI}}) \left(\frac{SD}{\sqrt{N}} \right) \\ \text{LB} &= M - (t_{\text{CI}}) \left(\frac{SD}{\sqrt{N}} \right) \end{aligned}$
Estimating mean difference of sample mean (M) and population mean (μ)	$df = N - 1$	$\begin{aligned} \text{UB} &= (M - \mu) + (t_{\text{CI}}) \left(\frac{SD}{\sqrt{N}} \right) \\ \text{LB} &= (M - \mu) - (t_{\text{CI}}) \left(\frac{SD}{\sqrt{N}} \right) \end{aligned}$

Note: CI = confidence interval; df = degrees of freedom; UB = upper boundary; LB = lower boundary.