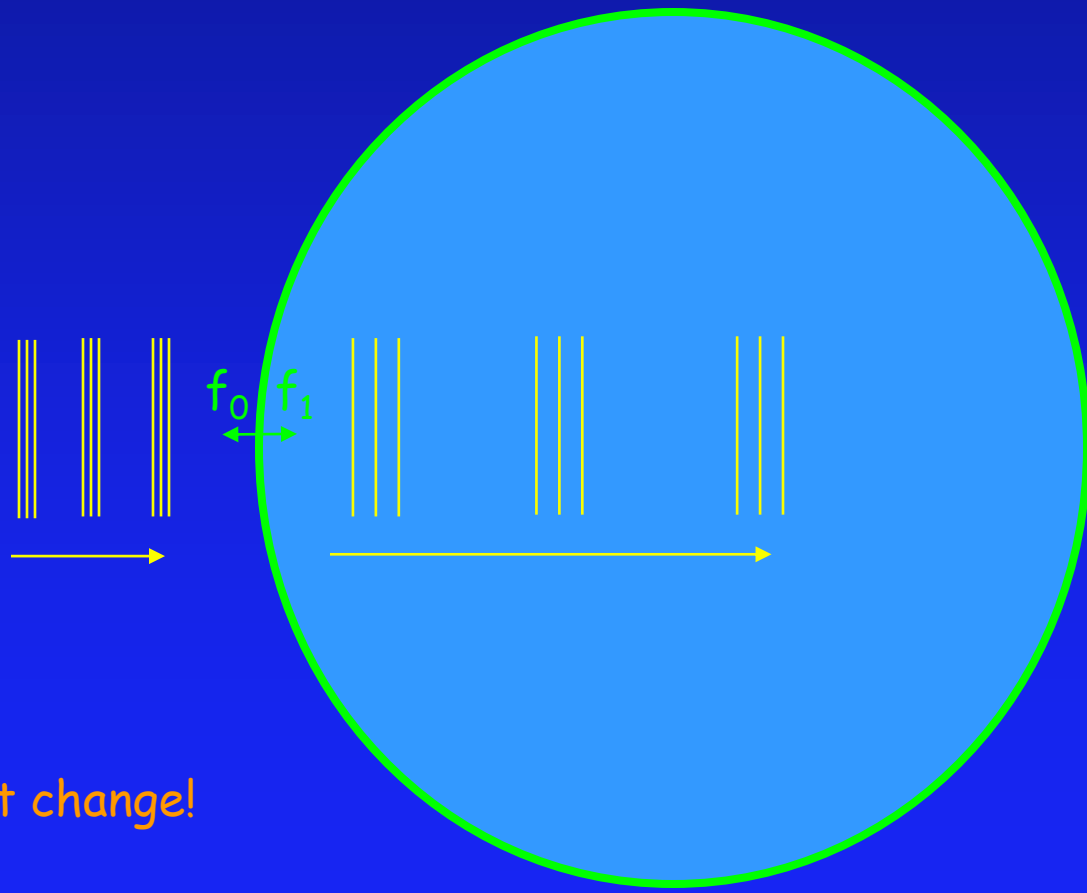
Frequency ACT

A sound wave having frequency f_0, speed v_0 and wavelength λ_0, is traveling through air when in encounters a large helium-filled balloon. Inside the balloon the frequency of the wave is f_1, its speed is v_1, and its wavelength is λ_1 Compare the frequency of the sound wave inside and outside the balloon

1. $f_1 < f_0$
2. $f_1 = f_0$ ⟵ correct
3. $f_1 > f_0$



Time between wave peaks does not change!