

Physical principles of CEUS and sonoporation

Michiel Postema

Correct answer in **bold**.

1

A parameter indicating the potential damage to tissue is the Mechanical Index (MI). Which of the following is true?

- a) The potential damage to tissue increases with driving frequency and pulse length.
- b) The potential damage to tissue increases with acoustic pressure and pulse length.**
- c) The potential damage to tissue decreases with increasing driving frequency and acoustic pressure.
- d) The potential damage to tissue decreases with increasing driving frequency and pulse length.

2

Which of the following is a valid definition of sonoporation?

- a) Sonoporation is the transient permeabilisation of cells using sound.**
- b) Sonoporation is the permanent permeabilisation of cells using sound.
- c) Sonoporation is the transient permeabilisation of cells using an ultrasound contrast agent.
- d) Sonoporation is the permanent permeabilisation of cells using an ultrasound contrast agent.