

# ОСНОВИ НА МАГНИТНО РЕЗОНАНСНАТА ТОМОГРАФИЯ: SLICE THICKNESS & NEX

Токуда Болница София

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## ◎ Slice thickness

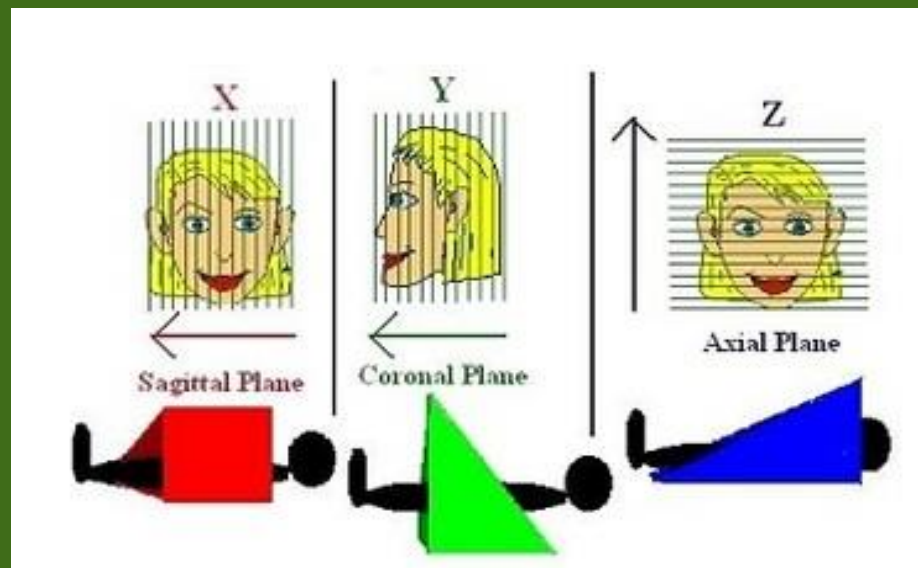
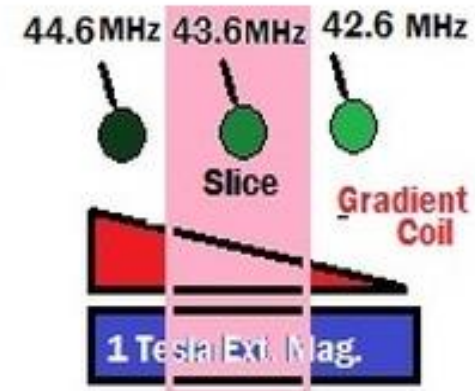
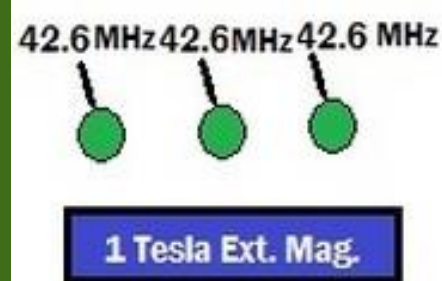
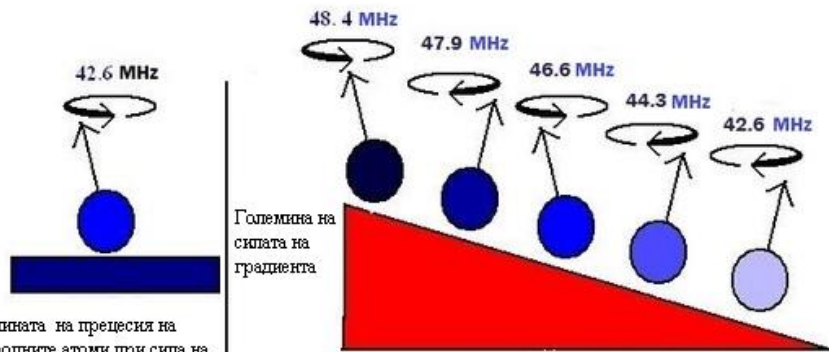
- Как се локализируют срезовеите
- Защо се променя дебелината на среза
- Защо е необходим интервал между срезовеите
- Върху какво влияят горните промени?

## ◎ NEX/NSA

- Какво е NEX/NSA
- Върху какво влияе?

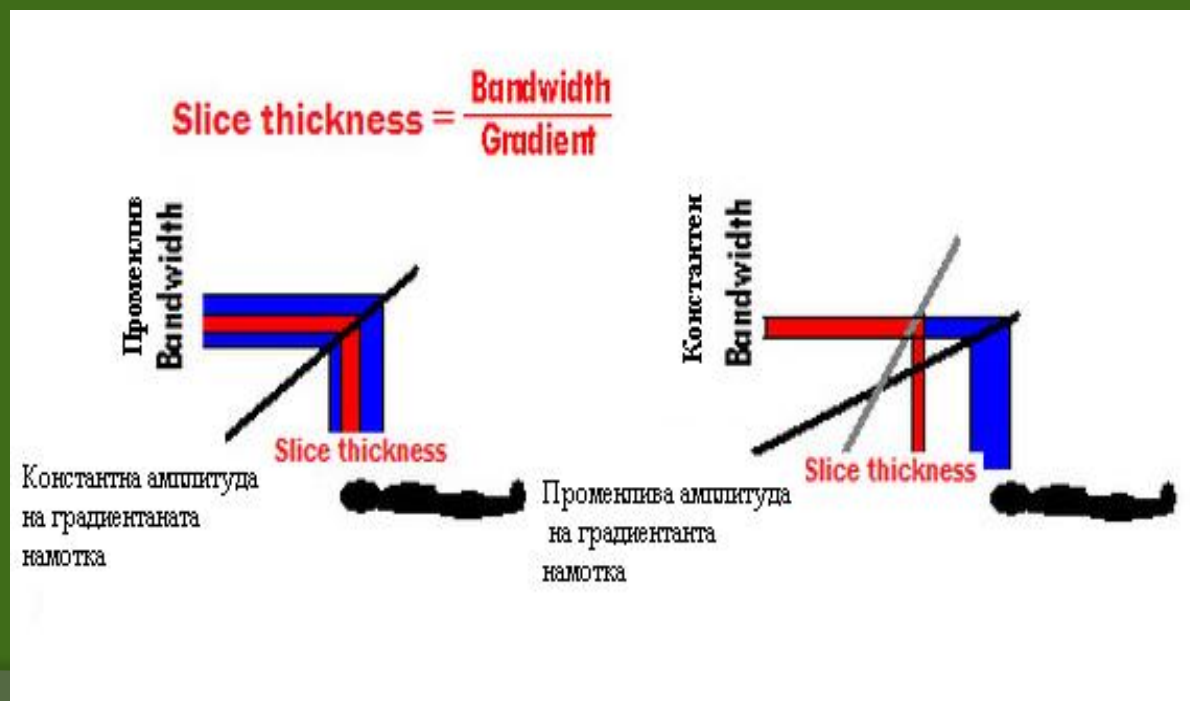
Slice thickness

# Как се локализират срезите?



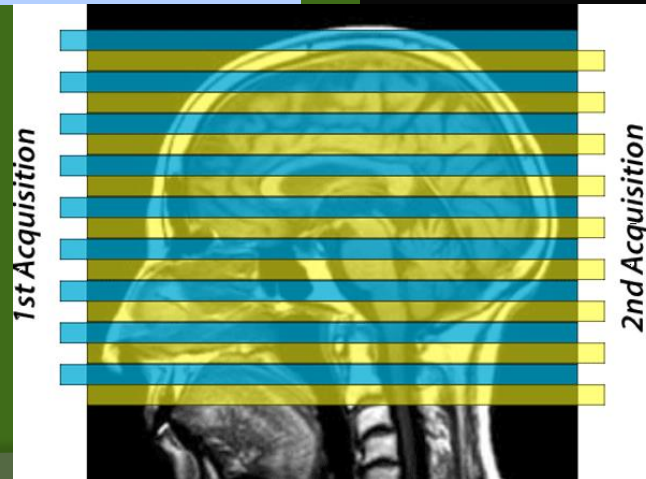
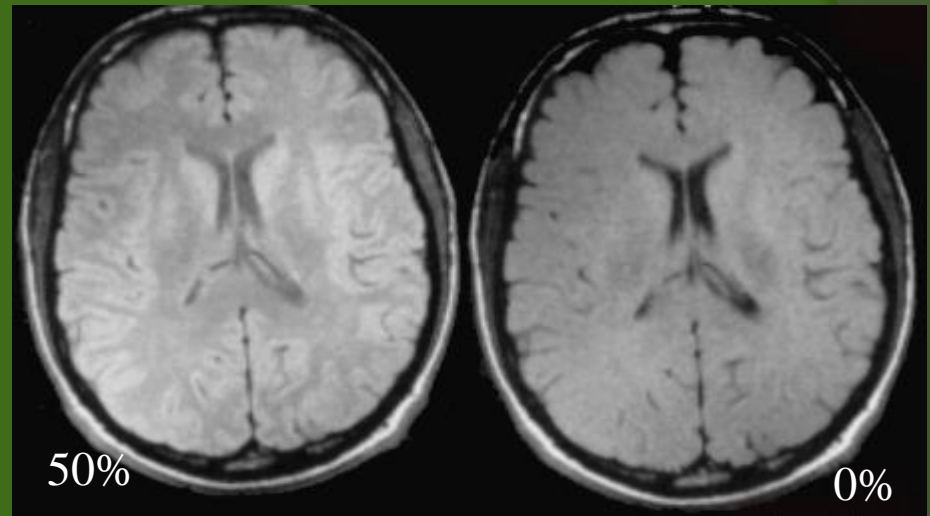
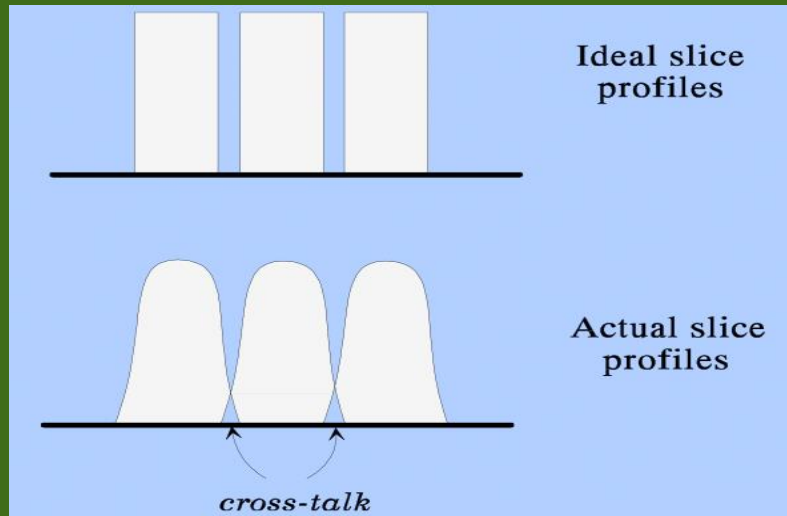
# Защо се променя дебелината на среза?

- ⦿ Когато Bandwidth нараства, дебелината на среза нараства
- ⦿ Когато силата на градиента нараства, дебелината на среза намалява



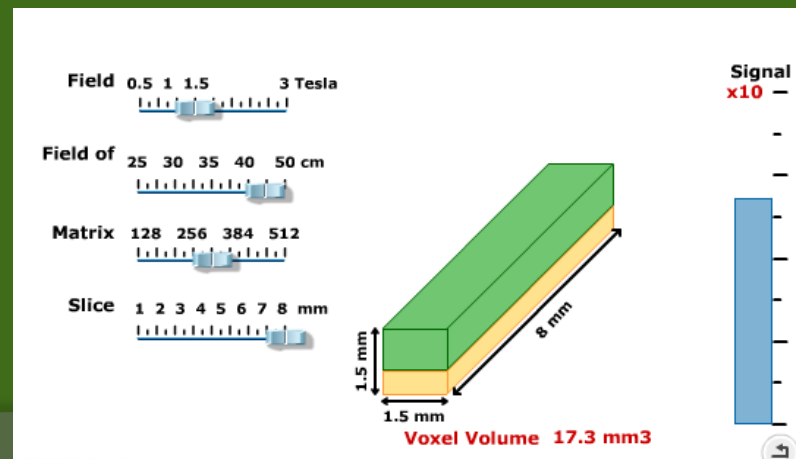
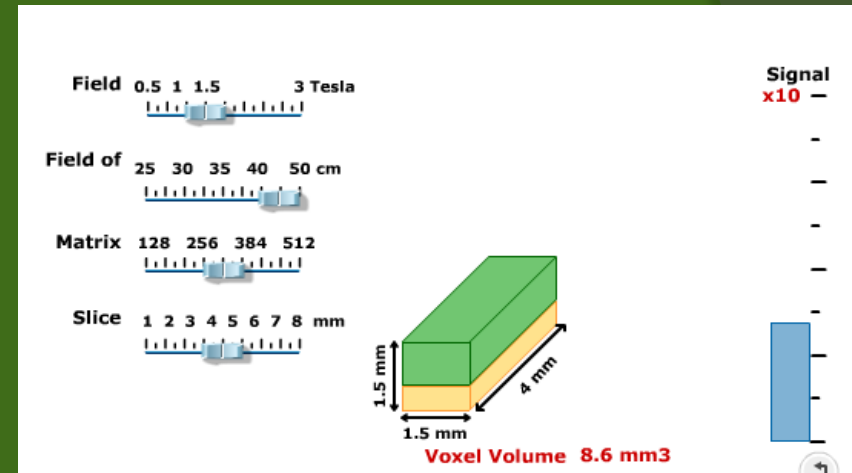
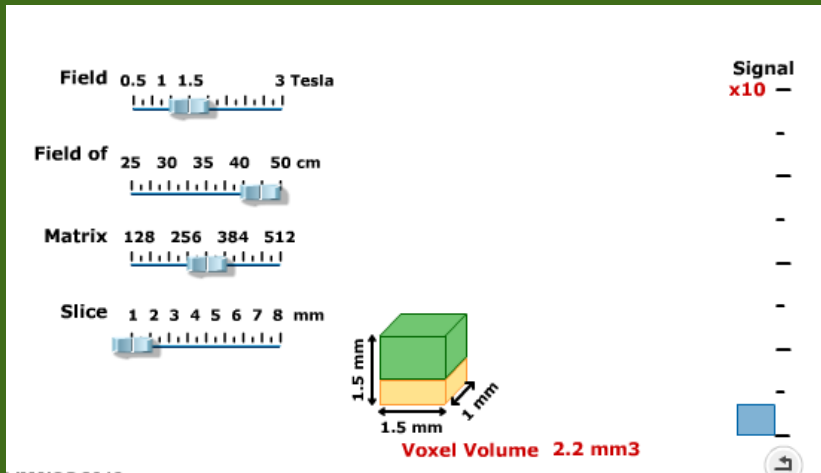
# Защо е необходим интервал между срезове?

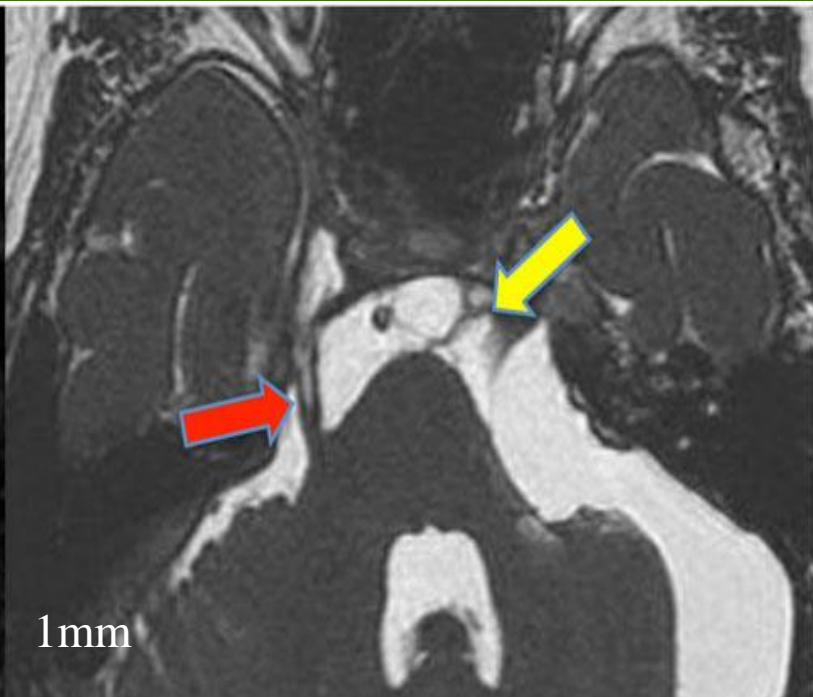
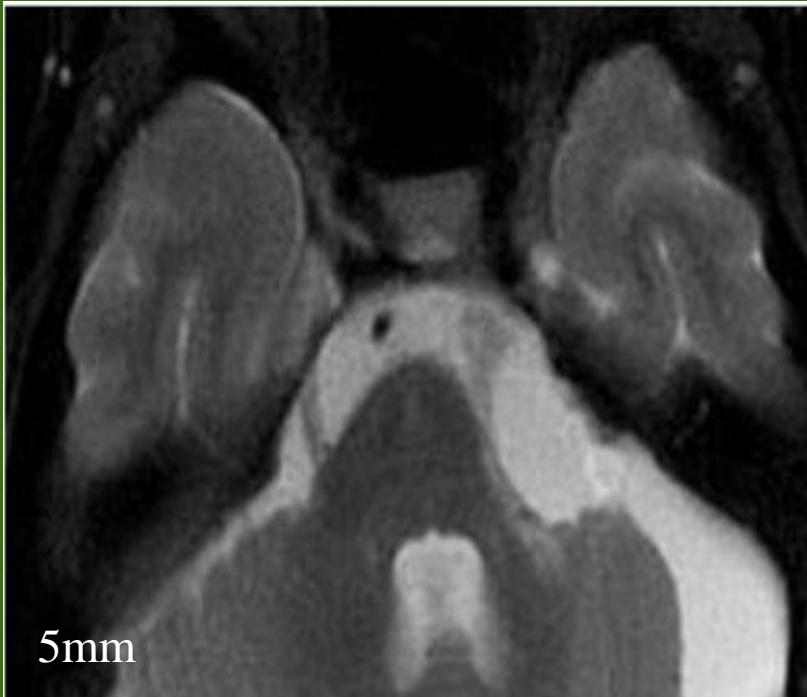
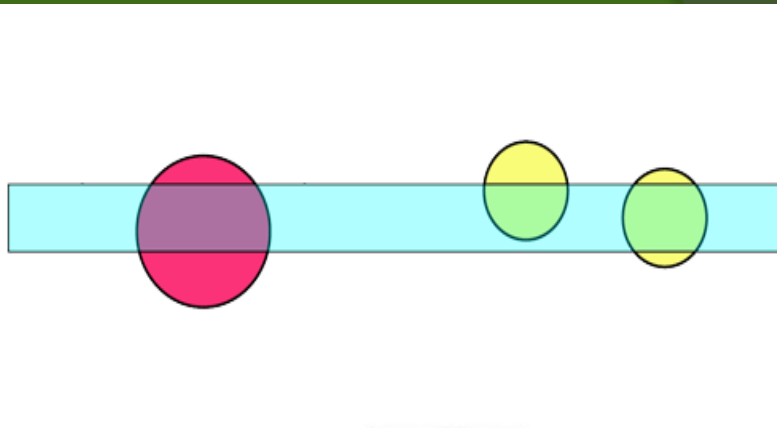
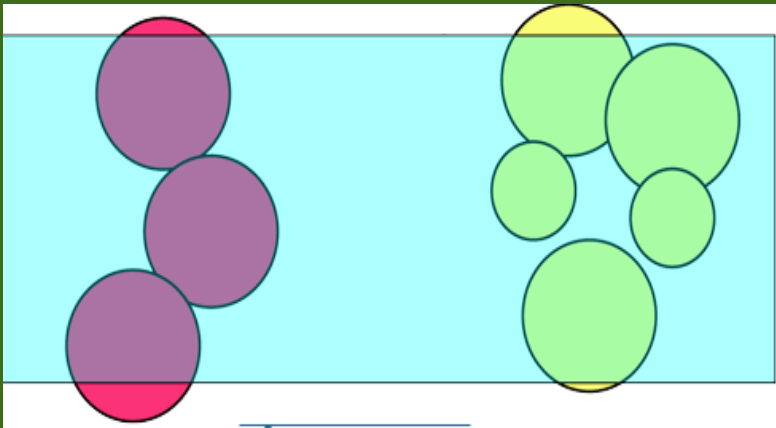
## ◎ Cross-talk артефакт



# Върху какво влияе slice thickness?

## ◎ Специалната разделителна способност

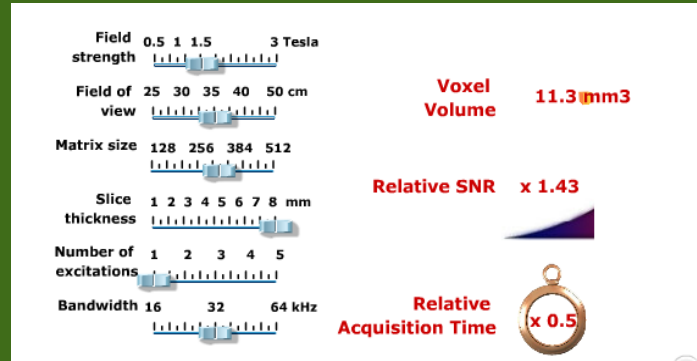
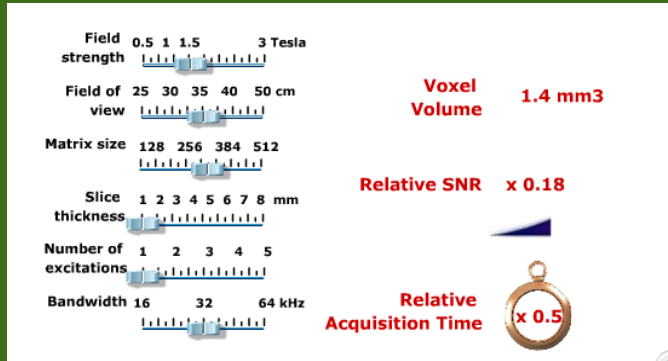
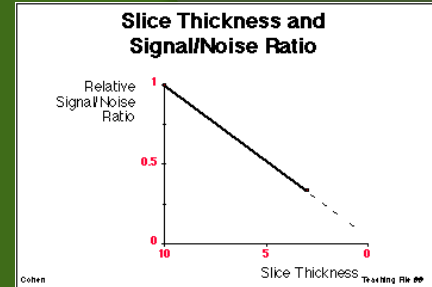






# Върху какво влияе slice thickness?

## Signal-to-noise ratio



Slice thickness 3mm



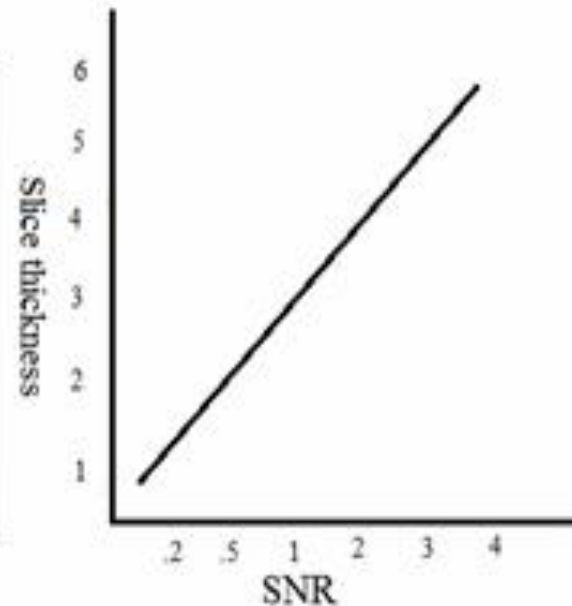
Scan time 2min



Slice thickness 6MM

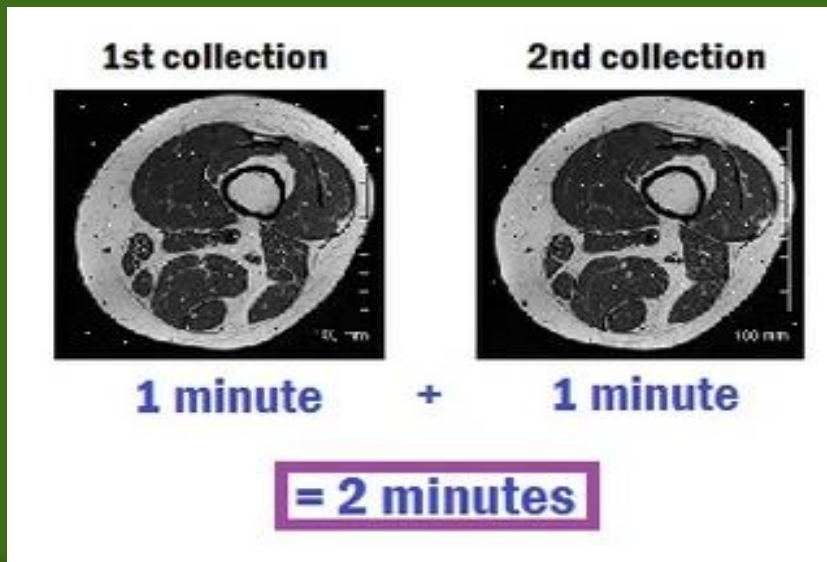
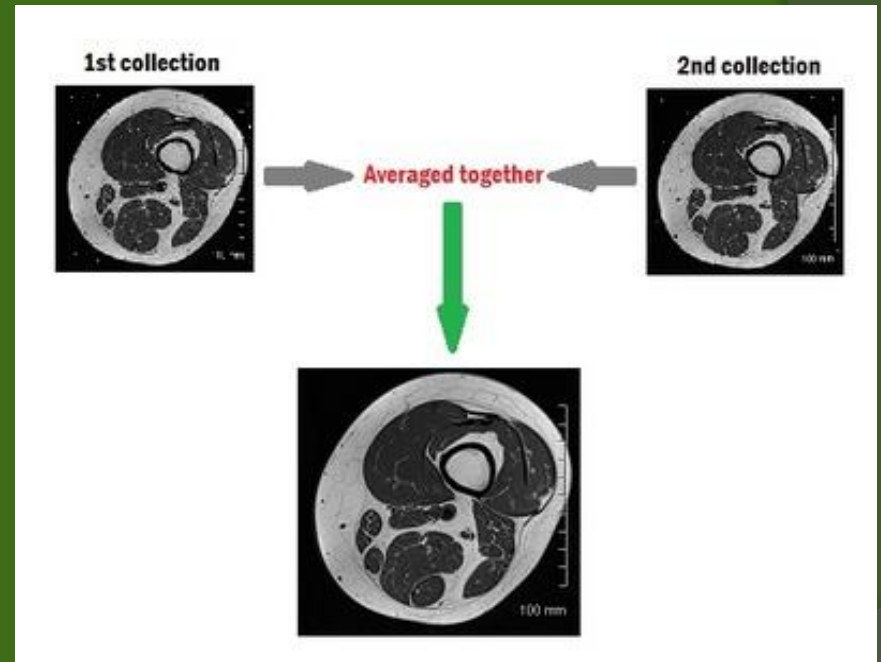
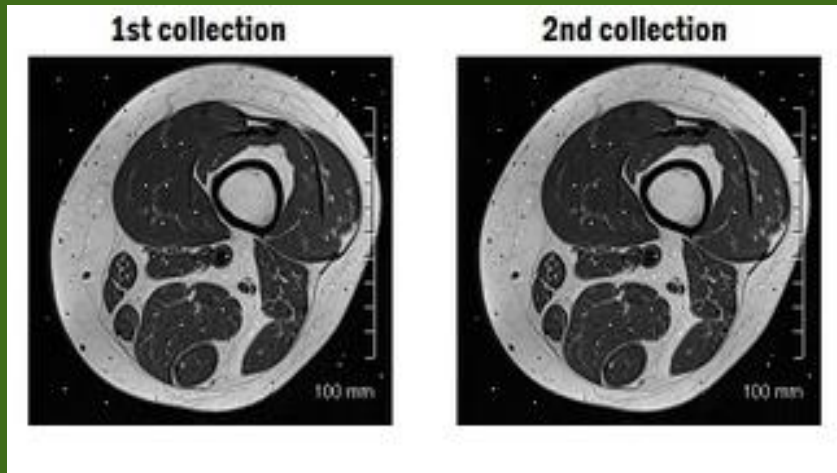


Scan time 2min



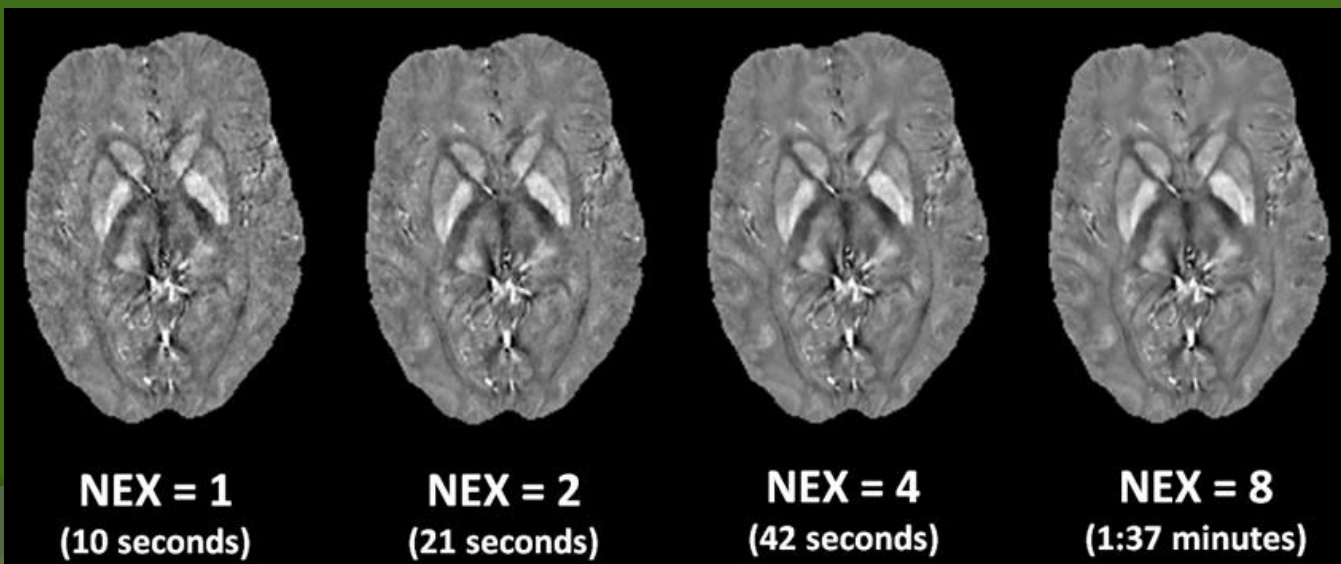
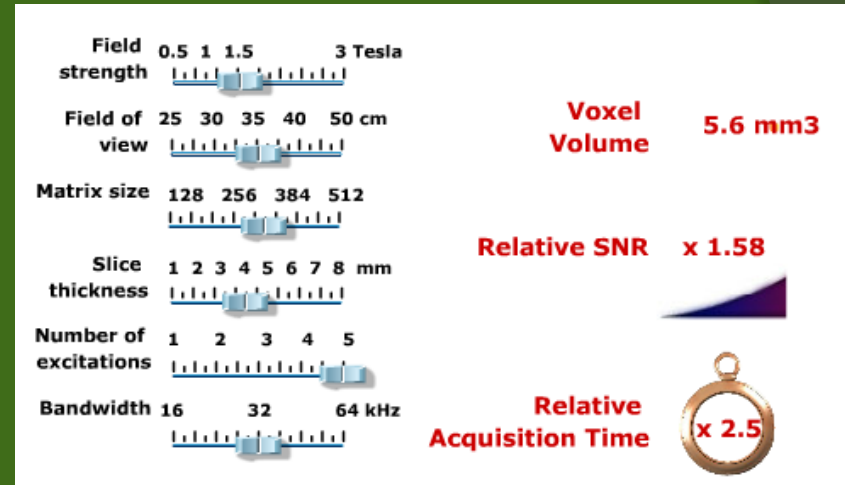
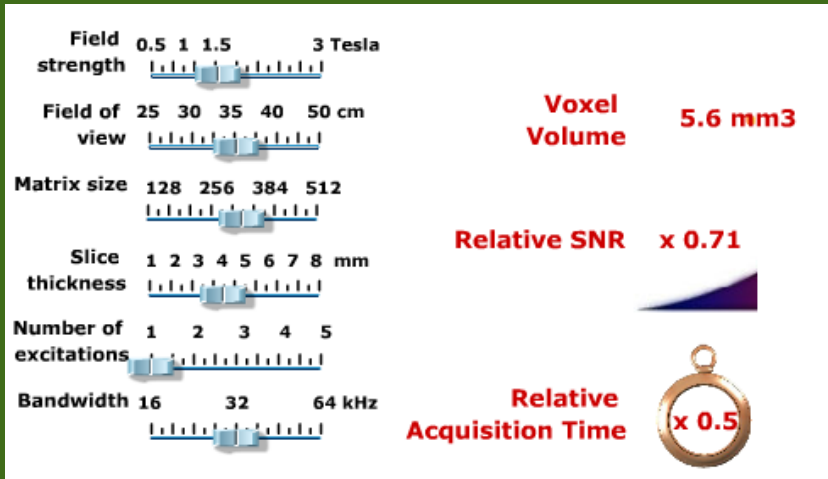
NEX/NSA

# Какво е NEX/NSA?

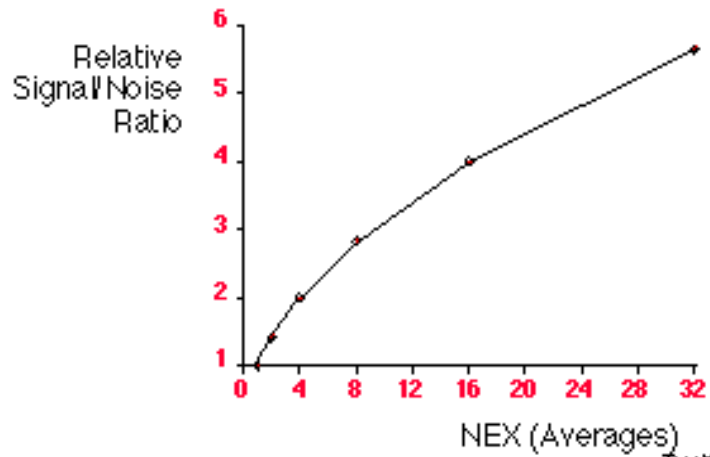


# Върху какво влияе?

## ◎ Signal-to-noise ratio



## Averaging (NEX) and Signal/Noise Ratio



1 Average/Number of Excitations



1 min. 12 sec.

2 Averages/Number of Excitations



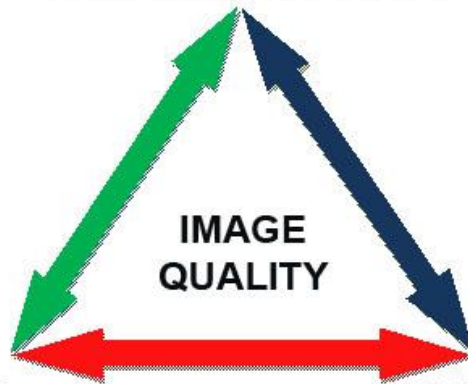
2 min. 23 sec.

SPATIAL RESOLUTION

IMAGE  
QUALITY

SNR

SCAN TIME



# Исползвана литература

- ◎ <http://mri-q.com>
- ◎ <http://psdlw.users.sourceforge.net/>
- ◎ <https://www.imaios.com>
- ◎ <http://airto.hosted.ats.ucla.edu/>
- ◎ <http://www.revisemri.com/>

БЛАГОДАРЯ  
ЗА ВНИМАНИЕТО