



Nasjonal  
kompetansetjeneste  
**Trening**  
som medisin

# Ikke bare 4x4

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Leder NK Trening som medisin/ post doc CERG



**FYSISK AKTIVITET**

“enhver kroppslig bevegelse initiert av skjelettmuskulatur som resulterer i en vesentlig økning i energiforbruket utover hvilenivå”

**TRENING**

“fysisk aktivitet som er planlagt, strukturert og som gjentas, og som har som mål å bedre eller vedlikeholde fysisk form”

**STILLESITTING**

“våken tid i sittende, liggende eller annen fysisk hvilende stilling”

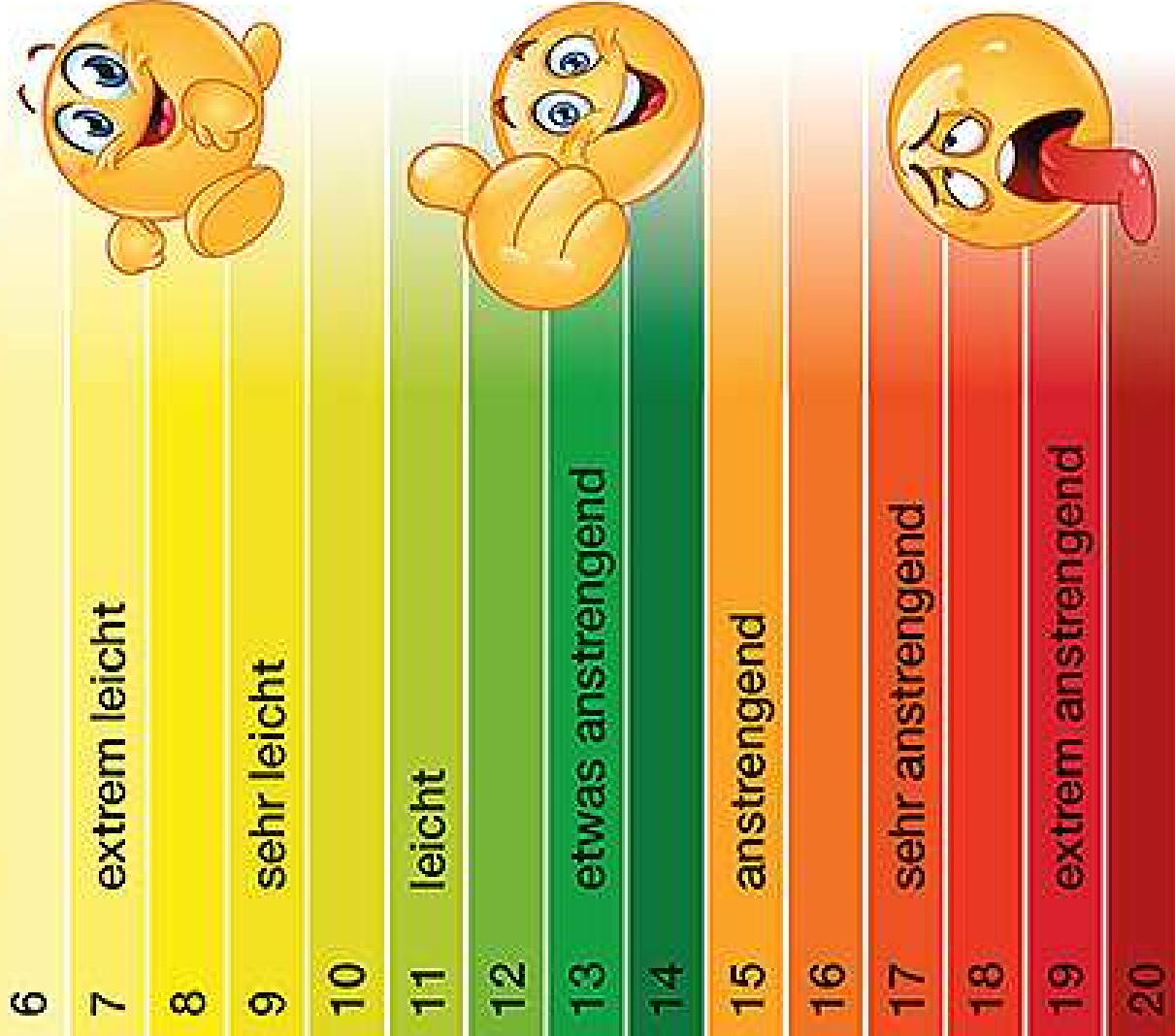


**Table 1** Classification of exercise intensity for aerobic exercise

Intensity	% of HRR or %VO <sub>2</sub> R	% HRmax	% VO <sub>2</sub> max	Perceived exertion (Borg scale 6-20)
Very light	<30	<57	<37	RPE<9
Light	30-39	57-63	37-45	RPE 9-11
Moderate	40-59	64-76	46-63	RPE 12-13
Vigorous	60-89	77-95	64-90	RPE 14-17
Near-maximal to maximal	≥ 90	≥96	≥91	RPE ≥18



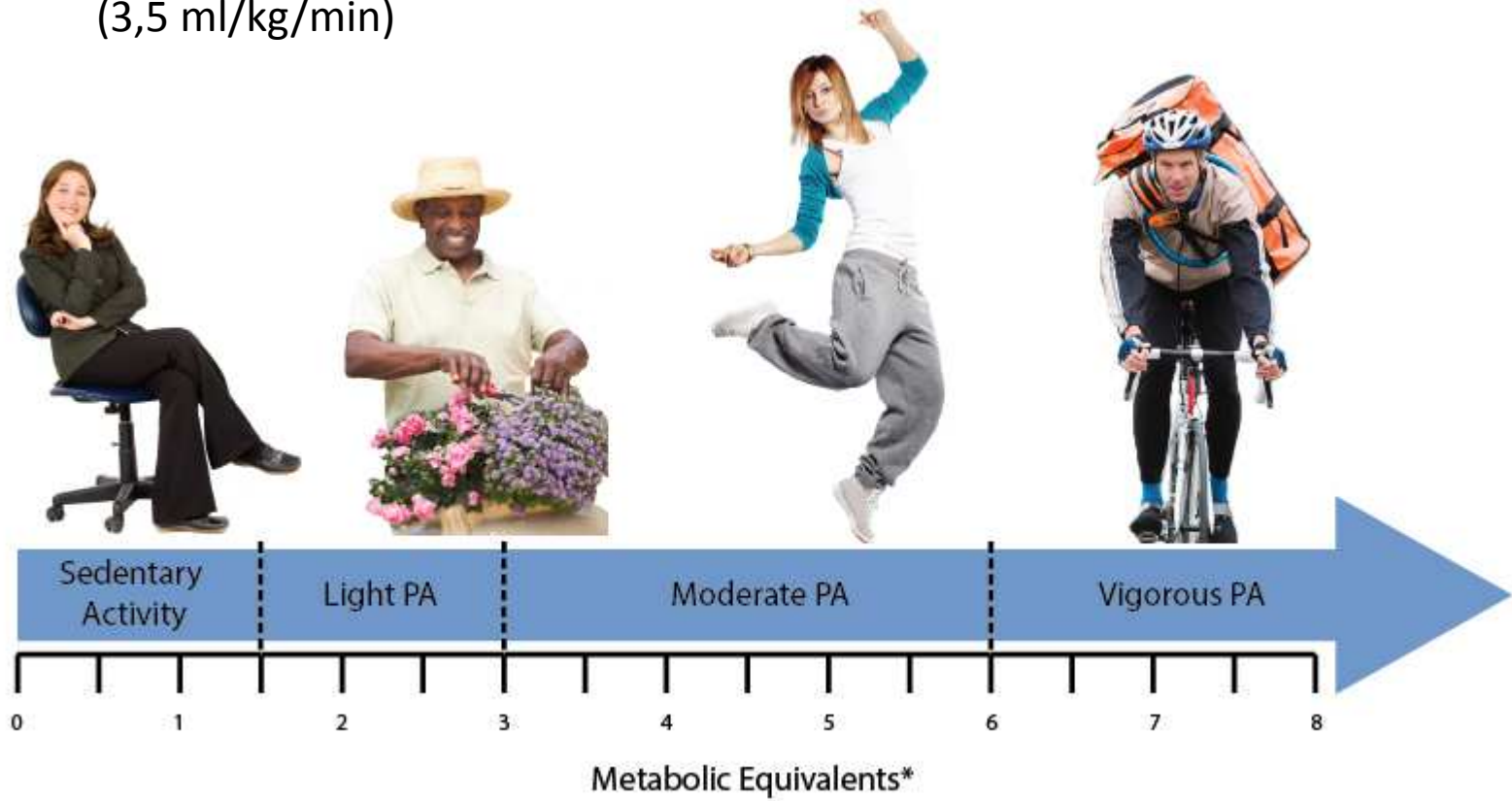
## Borg-Skala







1 MET: hvilemetabolisme  
(3,5 ml/kg/min)



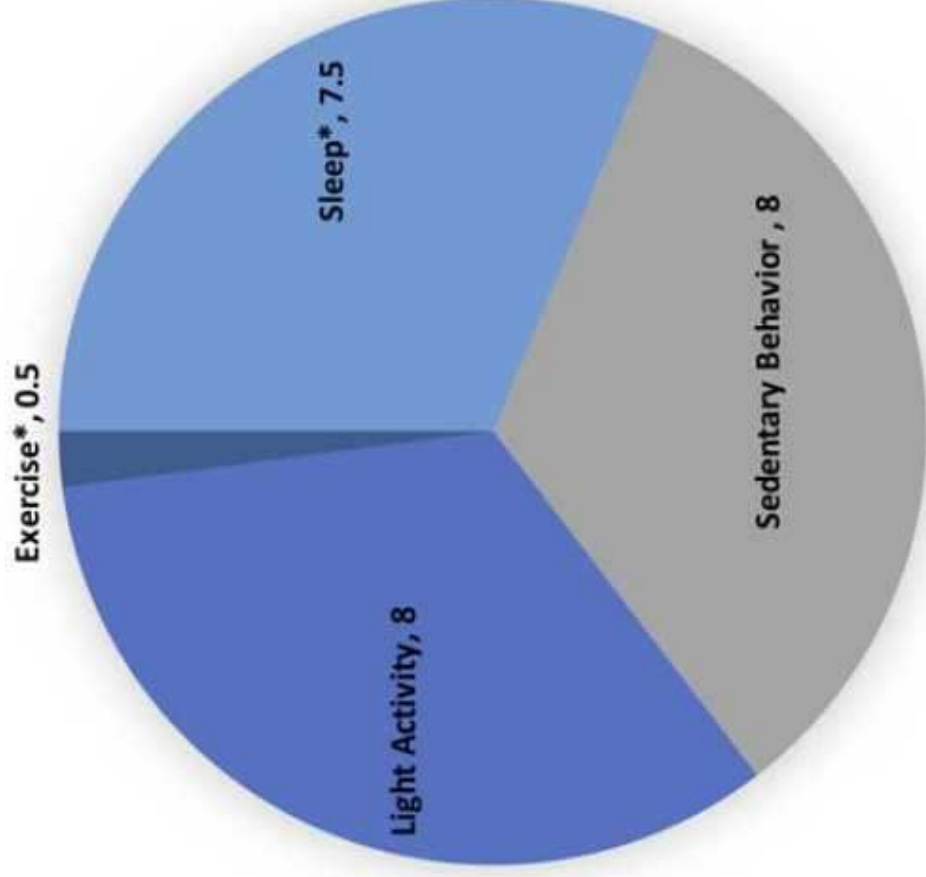
Helsegevinst



Treningseffekt



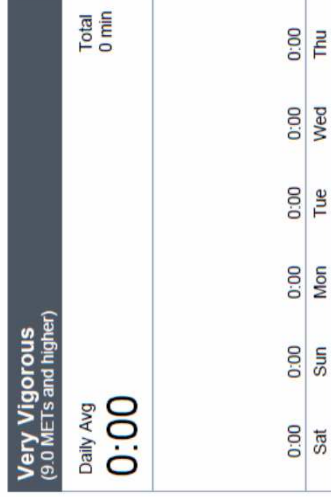
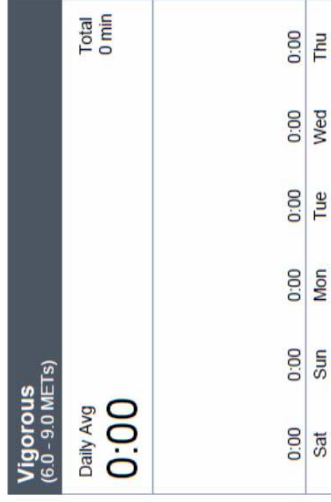
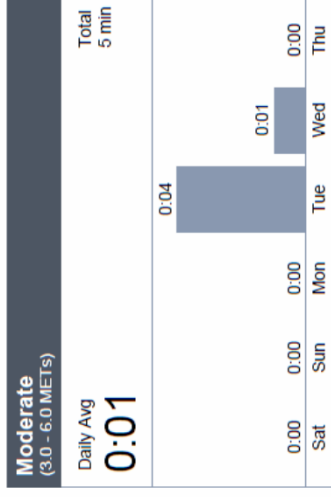
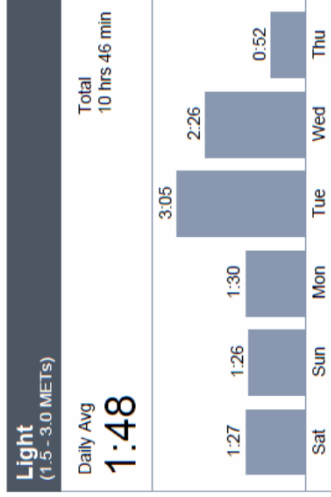
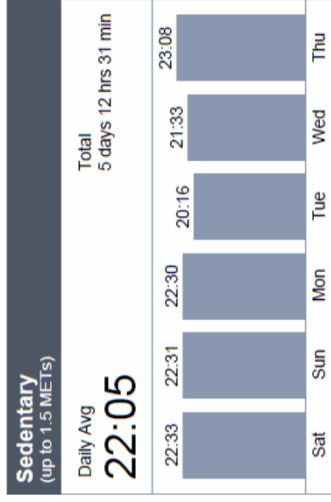
## Recommended 24 Hour Activity Cycle (In hours, \*Published Guidelines)

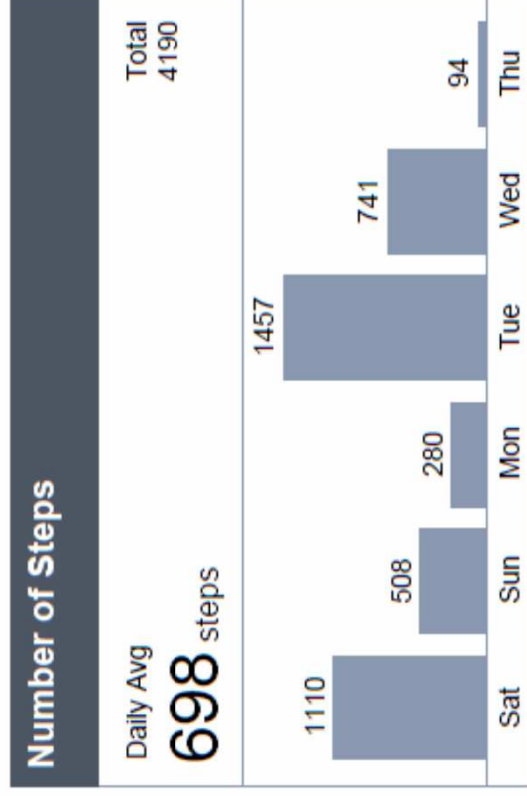
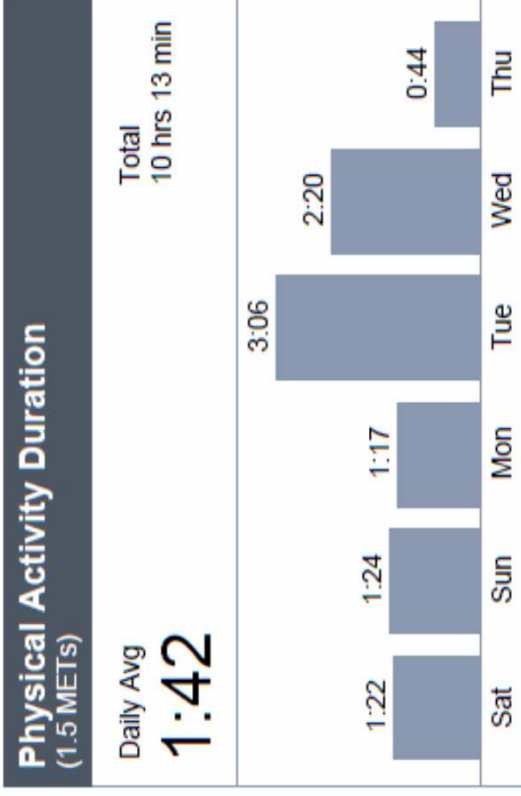
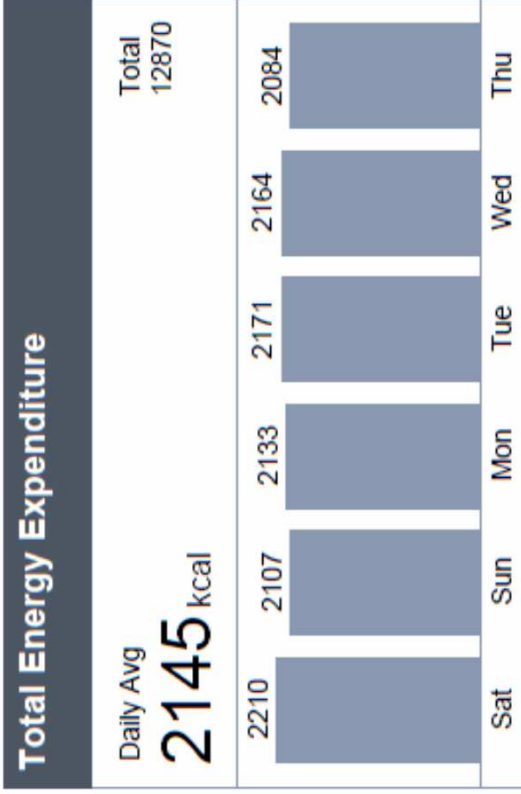




<b>Date of Birth</b> Sep 24, 1941 (75)	<b>Gender</b> Male	<b>Weight</b> 85.0 kg	<b>Height</b> 178.0 cm	<b>Handed</b> Right	<b>Smoker</b> No	<b>BMI</b> 26.8	<b>BSA</b> 2.0 m <sup>2</sup>	<b>WHO RMR</b> N/A kcal/day
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<b>Start Time</b> Sat 3 Dec 2016 00:00	<b>End Time</b> Fri 9 Dec 2016 00:00	<b>Duration of View</b> 6 days	<b>Duration on-body</b> 5 days 23 hrs 22 min (99.6%)
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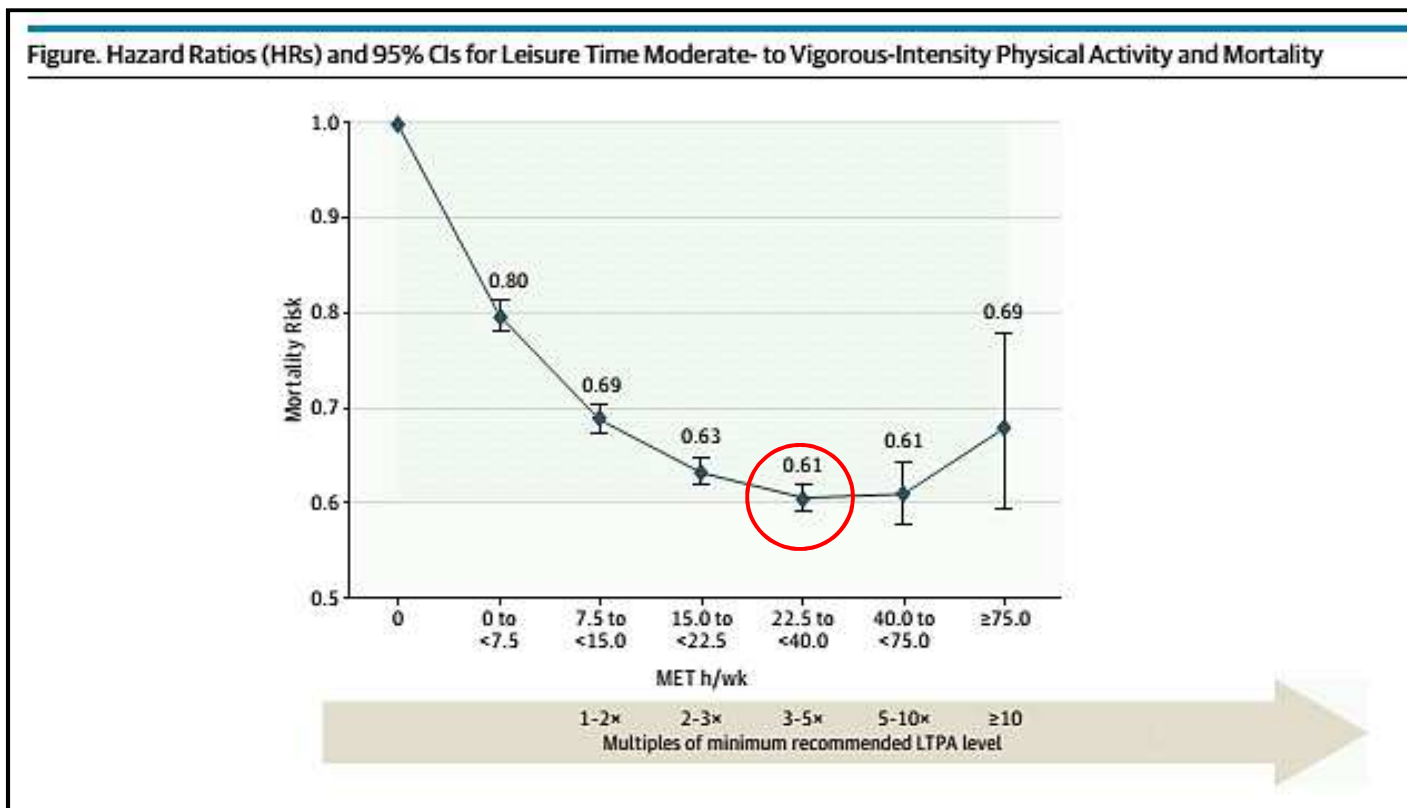




Hvordan bør man trene?

Forebyggende eller behandlende?

# Øvre terskel for treningsmengde?



- n=661 137
- 62 (21-98) år
- 14.2 år oppfølging
- 3-5 g dagens anbefalinger optimalt!
- Ingen økt risiko ≥10 g

Arem et al. JAMA 2015

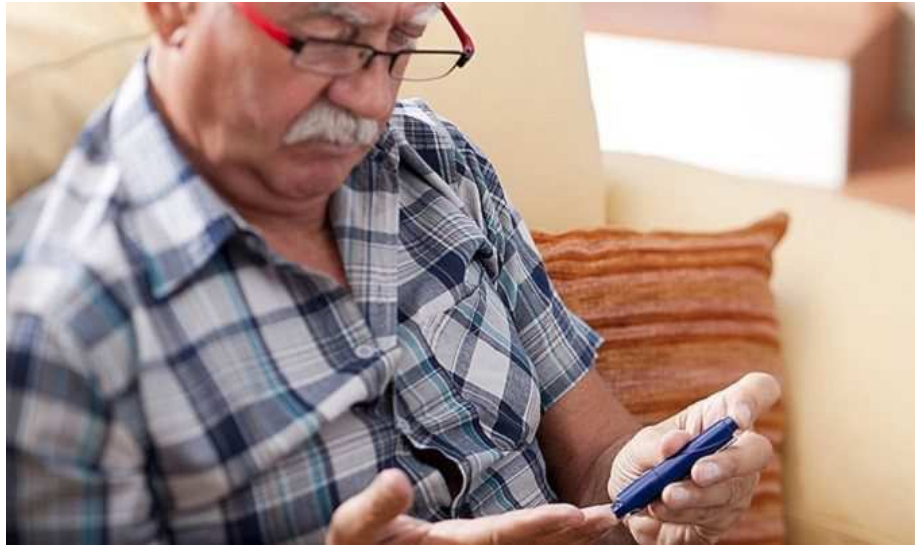


# STORE MUSKELGRUPPER



**INTENSITET I FORHOLD TIL HVA  
MAN ØNSKER Å PÅVIRKE**





- Diabetes type 2
- Lett overvektig
- Hypertensjon
- Høye triglycerider
- Medisinert

- Høy intensitet mtp insulinsensitivitet (intervall)
- Høy intensitet mtp endotelfunksjon (intervall)
- Rolig langkjøring (ex 2-3 timers søndagstur) mtp forbrenning
- Økt hverdagsaktivitet mtp forbrenning



- Røykebein
- Kols
- Hypertensjon
- Hyperkolesterolemi
  
- Medislinert

- DOSERING**
- Intensitet fremfor varighet (lungebegrensning, smertebegrensning)
  - Kortintervaller (30 -60 sek)
  - Frekvens
  - Styrketrening