# R-kode for å regne ut fysisk aktivitetsnivå

### Questionnaires

Before and after both training interventions, they completed a questionnaire regarding regular weekly activity habits during the preceding 8-week period. The results (time spent for different activities) were translated into energy expenditure (kcals∙week-1) during activities using number of metabolic equivalents provided by (Jetté et al., 1990).

# Physical activity level

Participants were asked how many hh:mm per week they performed different types of activities.

Here, the hh:mm is first converted to hours in decimals,

```{r}

# Creating physical\_activity\_data

# Vectorize the function to convert hh:mm to decimal hours

convert\_to\_decimal <- Vectorize(function(time\_str) {

parts <- strsplit(time\_str, ":")[[1]]

hours <- as.numeric(parts[1])

minutes <- as.numeric(parts[2])

decimal\_time <- hours + minutes / 60

return(decimal\_time)

})

# Load data

fa\_questionnaire\_data <- read\_excel("data/fa\_questionnaire\_data.xlsx") %>% # OBS! This must be added to the RepeatData package instead. Use renaming there instead?

mutate(

period = ifelse(timepoint %in% c("per1\_pre", "per1\_post"), "1",

ifelse(timepoint %in% c("per2\_pre", "per2\_post"), "2",

ifelse(timepoint == "per2\_after", "after", NA)))) %>%

# Rename timepoints

mutate(

timepoint = ifelse(timepoint %in% c("per1\_pre"), "pre\_intervention",

ifelse(timepoint %in% c("per1\_post"), "period1",

ifelse(timepoint %in% c("per2\_pre"), "detraining",

ifelse(timepoint %in% c("per2\_post"), "period2",

ifelse(timepoint == "per2\_after", "post\_intervention", NA)))))) %>%

# Convert time variables from hh:mm to hours in decimal numbers, multiply by 60 to get minutes

# Multiply by the constant 1.2 kcal/min and the applicable METS from Jette, Sidney & Blumchen, 1990 to calculate the total energy expenditure used on the given activity per week

mutate(walking = convert\_to\_decimal(walking)\*60\*1.2\*5,

running = convert\_to\_decimal(running)\*60\*1.2\*10,

cycling = convert\_to\_decimal(cycling)\*60\*1.2\*7,

pole\_walking = convert\_to\_decimal(pole\_walking)\*60\*1.2\*9, # No METS for this, but have used the one for moderate cross country skiing

cross\_country\_skiing = convert\_to\_decimal(cross\_country\_skiing)\*60\*1.2\*9,

swimming = convert\_to\_decimal(swimming)\*60\*1.2\*5,

skating = convert\_to\_decimal(skating)\*60\*1.2\*7.5,

padeling = convert\_to\_decimal(padeling)\*60\*1.2\*6.667,

strenght\_training = convert\_to\_decimal(strenght\_training)\*60\*1.2\*5,

dancing = convert\_to\_decimal(dancing)\*60\*1.2\*5,

golf = convert\_to\_decimal(golf)\*60\*1.2\*3.7,

yoga = convert\_to\_decimal(yoga)\*60\*1.2\*3.2,

tennis = convert\_to\_decimal(tennis)\*60\*1.2\*6,

other\_ball\_games = convert\_to\_decimal(other\_ball\_games)\*60\*1.2\*4,

water\_gymnastics = convert\_to\_decimal(water\_gymnastics)\*60\*1.2\*6,

alpine\_skiing = convert\_to\_decimal(alpine\_skiing)\*60\*1.2\*6,

combat\_sports = convert\_to\_decimal(combat\_sports)\*60\*1.2\*9,

training\_to\_music = convert\_to\_decimal(training\_to\_music)\*60\*1.2\*6,

squach = convert\_to\_decimal(squach)\*60\*1.2\*5,

farm\_work = convert\_to\_decimal(farm\_work)\*60\*1.2\*4.5,

craft\_work = convert\_to\_decimal(craft\_work)\*60\*1.2\*5.25,

gardening = convert\_to\_decimal(gardening)\*60\*1.2\*3.85,

household\_chores = convert\_to\_decimal(household\_chores)\*60\*1.2\*2.9,

other\_activities = convert\_to\_decimal(other\_activities)\*60\*1.2\*3) %>% # No METS for this, self selected

group\_by(id, timepoint) %>%

summarise(household.work = sum(across(c(farm\_work:household\_chores)), na.rm=TRUE),

recreational.activities = sum(across(c(walking:squach)), na.rm=TRUE),

total.activity = sum(across(c(walking:household\_chores)), na.rm=TRUE)) %>% # Only physical activity, not household chores ect.

mutate(id = as.factor(id)) %>%

print()

```

HUSK Å FILTRE DELTAKERE