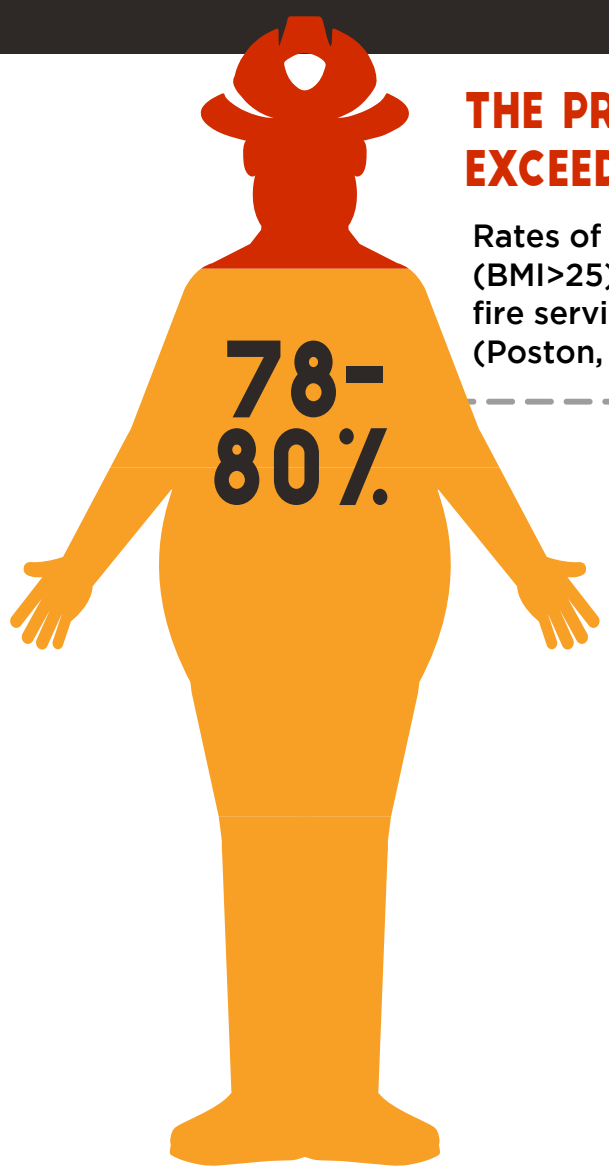
OBESITY & FIREFIGHTERS

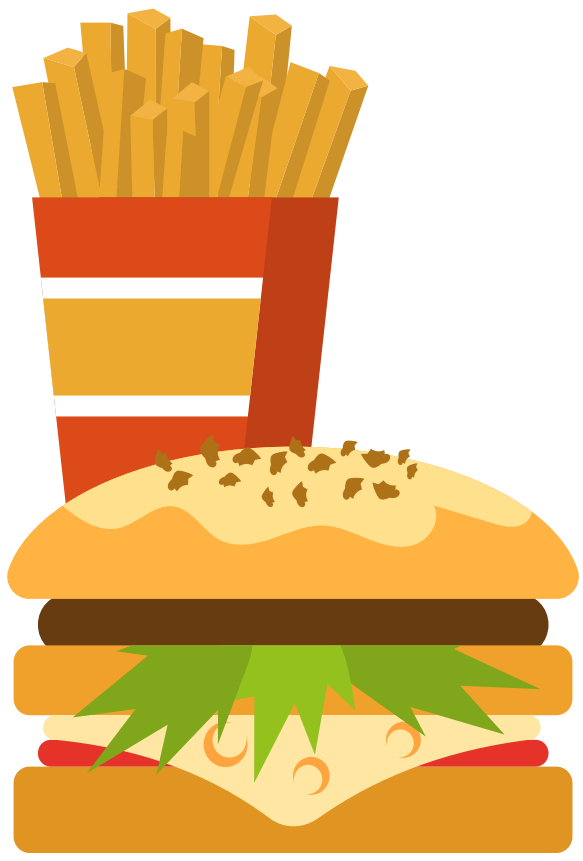


THE PREVALENCE OF OVERWEIGHT AND OBESITY AMONG FIREFIGHTERS EXCEEDS THAT OF THE US GENERAL POPULATION (POSTON, 2011)

Rates of overweight and obesity combined (BMI>25) range from 78%-80% of men in the fire service, depending on study population. (Poston, 2011)

INTERESTING INFO

- CVD (cardiovascular disease) is the leading cause of duty-related death: 46% among firefighters[1] 22% for police and 11% for EMS[2]
- Obesity among firefighters is associated with lower aerobic fitness, the clustering of various CVD risk factors, and a higher risk of cardiac enlargement[3]
- Firefighters with high BMI demonstrate impaired vascular function[4]
- Obese firefighters are 3x more likely to suffer an on-duty CVD-related fatality[5]



[1]NFPA, 2020; [2]Maguire et al., 2002; [3]Kales & Smith, 2017; [4]Fahs et al., 2009; [5]Soteriades et al., 2011

$315.8 Billion

DIRECT HEALTH CARE COSTS ASSOCIATED WITH OBESITY

Research estimated the per person direct medical expenses attributable to obesity to be $3,565 for men and $3,359 for women and found that the costs increased as the severity of obesity increased[8]

[8]Biener and colleagues (2017)

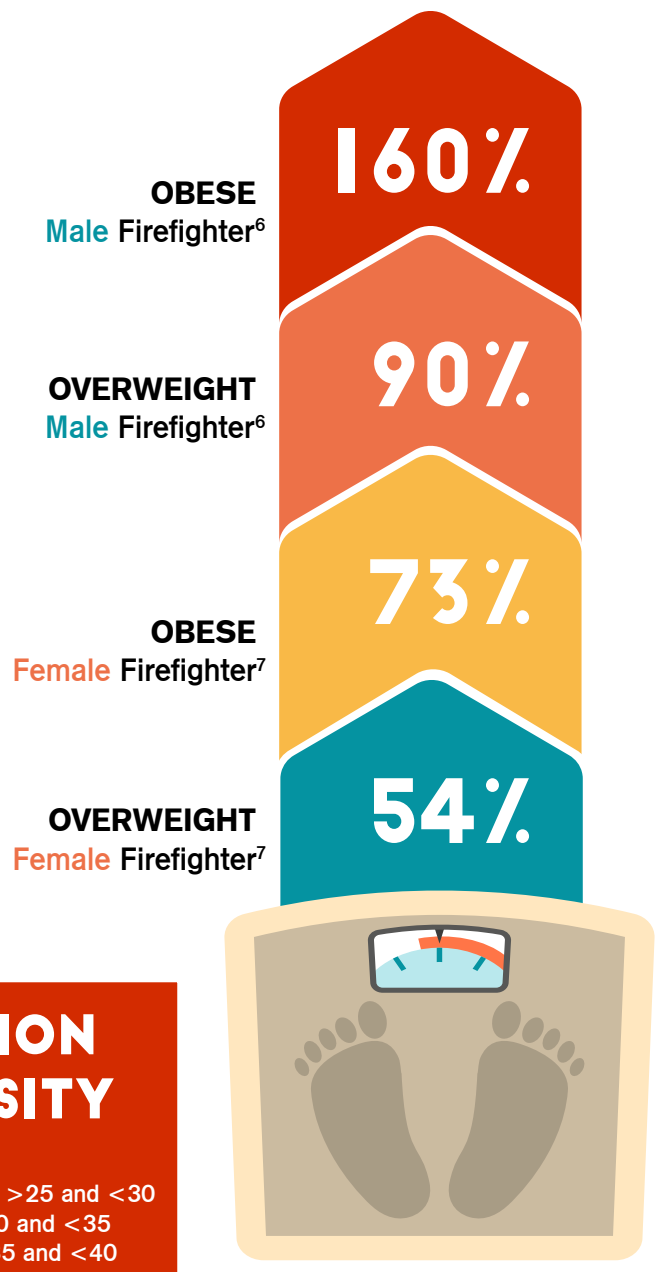
INDIRECT COSTS ARE VERY HIGH TOO $42.8 Billion

(Estimated to cost employers for productivity losses associated with absenteeism and presenteeism.[9])

[9]Finkelstein et al., 2010

INCREASED RISK OF INJURY

[6]Jahnke et al., 2013; [7]Hollerbach et al., 2020



THINGS CONTRIBUTING TO OBESITY IN THE FIRE SERVICE

- Shift work and sleep disruption
- Unique dietary factors in the Fire Service
- Irregular eating patterns
- Portion size, meal planning, and traditions
- Processed carbohydrates and sugar
- Alcohol and tobacco use
- Lack of consistent fitness standards/requirements
- Job-related stress

DEFINITION OF OBESITY

BMI (kg/m2)
- Overweight = BMI >25 and <30
- Class I = BMI >30 and <35
- Class II = BMI ≥35 and <40
- Class III = BMI >40

Body Fat Percentage
- Men, BF%>25;
- Women, BF%>30

Waist Circumference
- Men WC>40 inches;
- Women WC>35 inches

CENTER FOR FIRE RESCUE & EMS HEALTH RESEARCH