



Resource Guide: Gender Specific Health Concerns for Women Firefighters

This guide serves as a resource for occupational medical providers working with women firefighters. Firefighting is inherently dangerous but there are several considerations for women firefighters, specifically. Consider the following when working with your firefighter patients:



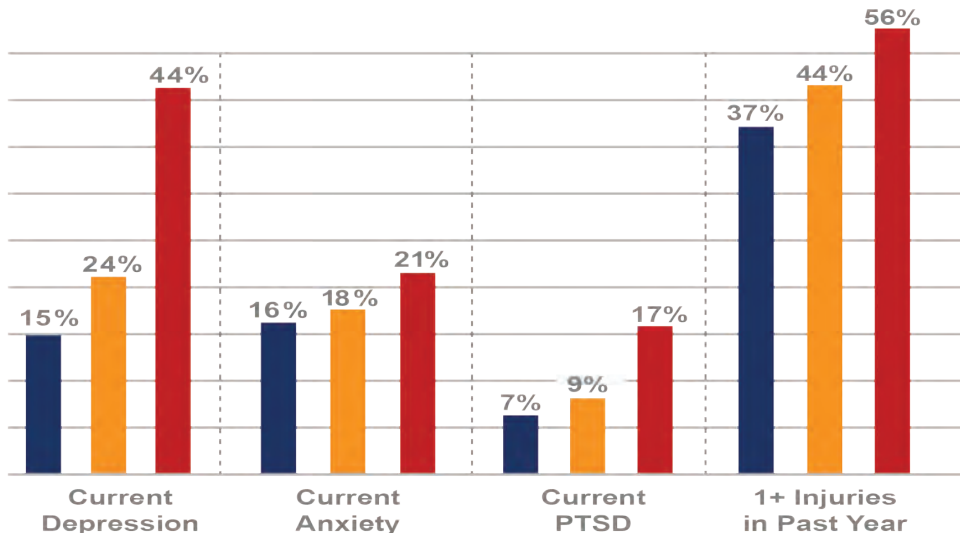
Additional Risk Factors for Injury among Women:

- Ill-fitting PPE(Protective Gear)
- Attempting tasks alone, even tasks that generally require more than one firefighter
- Increased rates of depression, anxiety, and PTSD related to increased rates of discrimination and harassment



Injury rates for men and women can be impacted by: being overweight or obese, poor health, substance use, disrupted sleep, experiencing discrimination and harassment, exercise habits, mental health, and job dissatisfaction³

IMPACTS OF DISCRIMINATION & HARASSMENT ON WOMEN'S MENTAL HEALTH



Increased
Discrimination
& Harassment
= Worse Health

Frequency and Severity of
Discrimination/Harassment

- Never
- Moderate
- Often

Reproductive Health for Female Firefighters:

► **Increased rates of miscarriage and pre-term birth among women firefighters¹⁰**

► **On average, women firefighters had 33% lower levels of anti-mullerian hormone (AMH), a measure of ovarian reserve which can indicate fertility¹².**

Risk Considerations During Pregnancy





	Trauma	Chemicals	Other Risks
First Trimester 	fetal trauma is mitigated due to the location of the uterus	Avoid exposure to heavy metals, hydrocarbons, carbon monoxide	Heat, noise, radiation, shift work, infections
Second Trimester 	fetal trauma is increased due to the intra-abdominal position after 13 weeks	Avoid exposure to heavy metals, hydrocarbons, carbon monoxide	Heat, noise, radiation, shift work, infections
Third Trimester 	fetal trauma is increased due to the intra-abdominal position after 13 weeks	Avoid exposure to heavy metals, hydrocarbons, carbon monoxide	Heat, noise, radiation, shift work, infections
Lactation 	No additional risk	Avoid exposure to heavy metals, hydrocarbons, carbon monoxide	Pumping and dumping considerations post-fire*

Table adapted from NFPA 1582, Appendix C, Table C.7

Additional Considerations:

- **One small pilot study found elevated AhR present in breast milk post-fire. However, a larger more recent study (under review, not yet published) found no variation in PBDEs and AhR response in breastmilk extracts of firefighters and non-firefighters and no significant variation after fire exposure**
- ***Discuss breastfeeding and when to "pump and dump" with your doctor**
- **Consult NFPA 1582 Chapter 9 and Annex C for specific guidance for pregnant and breastfeeding firefighters**
- **New and emerging research will guide future NFPA standards and inform policy and practice**

NFPA 1582 Essential Job Tasks (2022)

1) Wearing PPE and SCBA, while performing firefighting tasks, rescue operations, and other emergency response actions

2) Wearing an SCBA requiring the ability to tolerate increased respiratory workloads

3) Exposure to toxic fumes, irritants, particulates, biological (i.e., infectious) and nonbiological hazards, or heated gases

4) Climbing at least six flights of stairs or a similarly strenuous distance while wearing PPE and SCBA, commonly weighing 40–50 lb (18–23 kg) and carrying equipment/tools

5) Wearing PPE and SCBA that is encapsulating and insulated, resulting in significant fluid loss frequently progressing to clinical dehydration and elevated core temperature

6) Working alone wearing PPE and SCBA, searching, finding, and rescuing victims in hazardous conditions and low visibility

7) While wearing PPE and SCBA, advancing water-filled hoselines and can involve negotiating multiple flights of stairs, ladders, and other obstacles

8) In gear, climbing ladders, operating from heights, walking or crawling in the dark along narrow and uneven surfaces, and operating in proximity to electrical power lines or other hazards

9) Unpredictable, prolonged periods of extreme physical exertion

10) Operating fire apparatus or other vehicles

11) Critical, complex problem solving during physical exertion in stressful, hazardous environments

12) Ability to communicate while wearing PPE and SCBA under hazardous conditions

13) Functioning as an integral component of a team in a stressful environment

14) Working in shifts, including during nighttime, that can extend beyond 12 hours



**For more information;
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<http://bit.ly/3GfufNN>**