

# A Restaurant Worker's Involuntary Exposure to Tobacco Smoke



## The Experiment

A common misconception is that there is little risk from second- and thirdhand smoke in outdoor settings like restaurant patios. We set out to determine how much smoke lingers on workers who are employed at restaurants with outdoor smoking sections. Researchers tested a worker for tobacco smoke residue before and after working to find out.

### Pre- and Post-Exposure Hand Wipe Test

The worker's hands were wiped for nicotine before starting a shift, and again halfway through the shift, about three hours later. Each test was compared to a "blank" control wipe.



### 7-Day Wristband Test

The worker wore a silicone wristband to measure nicotine over one week. The worker kept a log of every time they were exposed to smoking and vaping at and outside of their 5 days at work.



## The Participant

- Restaurant worker in San Diego.
- Formerly smoked.
- Health issues worsened with smoke exposure.
- Admits patrons, checks IDs, and enters the smoking section to empty ashtrays hourly.



## The Restaurant

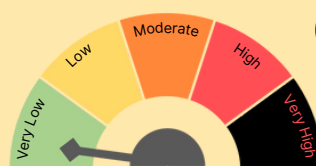
- The restaurant-bar has an outdoor patio with a smoking section, and uses fans and plastic barriers to reduce smoke intrusion.
- On hand wipe day, the restaurant was less busy than usual, with fewer people smoking.

## Test Results

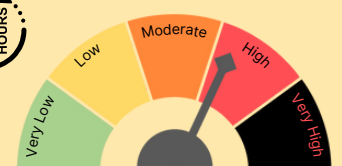
### Pre- and Post-Exposure Hand Wipe Results

Pre-Shift Hand Wipe

Mid-Shift Hand Wipe

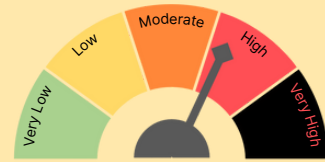


3 HOURS



The nicotine level found on the worker's hand after 3 hours of working a shift was comparable to that found on the hands of young children living in homes with people who smoke indoors.

### 7-Day Wristband Results



A high level of nicotine was found in the worker's wristband, comparable to levels observed in the homes of people who smoke inside their homes.

## What Does This Mean?



The results of the handwipe and wristband test show high levels of nicotine even after a few hours of time at the participant's place of work.

This shows that what many would consider short-term exposure to smoking in an outdoor setting can expose restaurant workers to high levels of toxic tobacco smoke residue that lingers on skin, hair, and clothes after their shift is over.

Workers in restaurants with outdoor smoking sections may routinely be exposed to similar levels of toxic tobacco smoke chemicals as someone who lives in a home where someone smokes indoors.