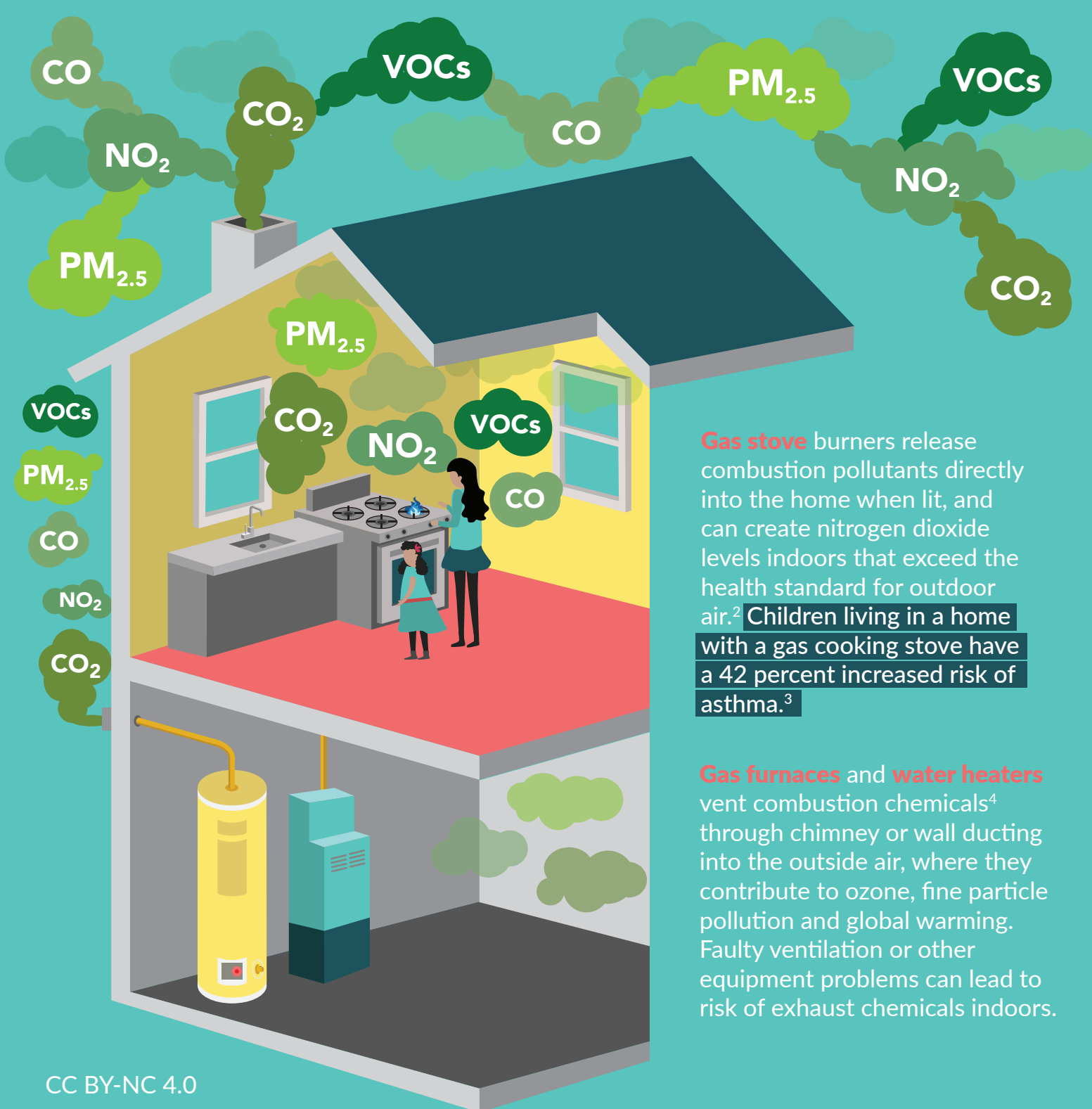


# How do gas appliances in our homes affect our air and health?

Gas combustion pollutants create serious health risks, especially for children, but fortunately there are solutions to explore.<sup>1</sup>



**Gas stove** burners release combustion pollutants directly into the home when lit, and can create nitrogen dioxide levels indoors that exceed the health standard for outdoor air.<sup>2</sup> Children living in a home with a gas cooking stove have a 42 percent increased risk of asthma.<sup>3</sup>

**Gas furnaces** and **water heaters** vent combustion chemicals<sup>4</sup> through chimney or wall ducting into the outside air, where they contribute to ozone, fine particle pollution and global warming. Faulty ventilation or other equipment problems can lead to risk of exhaust chemicals indoors.

## Gas combustion pollutants

**NO<sub>2</sub>**

### Nitrogen dioxide<sup>5</sup>

Decreases lung function, especially in children and the elderly.<sup>6</sup> Causes asthma attacks and development of asthma. Outdoors, it creates ozone and fine particle pollution.<sup>7</sup>

**VOCs**

### Volatile organic compounds<sup>8</sup>

Can cause difficulty breathing, nausea and damage to the nervous system. Some VOCs can cause cancer.<sup>9</sup> Outdoors, VOCs create ozone and fine particle pollution.

**CO**

### Carbon monoxide<sup>10</sup>

Causes fatigue and impaired brain function, and at high concentrations can cause headaches, dizziness and nausea — and can be fatal.

**PM<sub>2.5</sub>**

### Fine particulates<sup>11</sup>

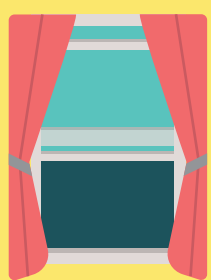
Can pass through the lungs into the bloodstream. Impacts include more severe asthma, difficulty breathing, heart attacks and strokes.<sup>12</sup>

**CO<sub>2</sub>**

### Carbon dioxide<sup>13</sup>

A greenhouse gas that causes climate change and its associated health effects, explained by the Centers for Disease Control and Prevention.<sup>14</sup>

## What can you do?



**Open windows if possible when cooking and use an outside-vented range hood if your stove has one.**

Be aware that range hood effectiveness can vary widely<sup>15</sup> and replacement with electric appliances appears to be the best solution.<sup>16</sup>



**Switch from gas to electric appliances — heat pumps, water heaters and stoves — as soon as feasible, or when appliances need replacement.** Electric stoves, including induction electric, significantly reduce emissions<sup>17</sup> in the home and don't produce carbon monoxide.<sup>18</sup>



**Ask government and utility representatives to create effective and broadly accessible programs to help people make the switch to electric appliances.**

### SOURCES:

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