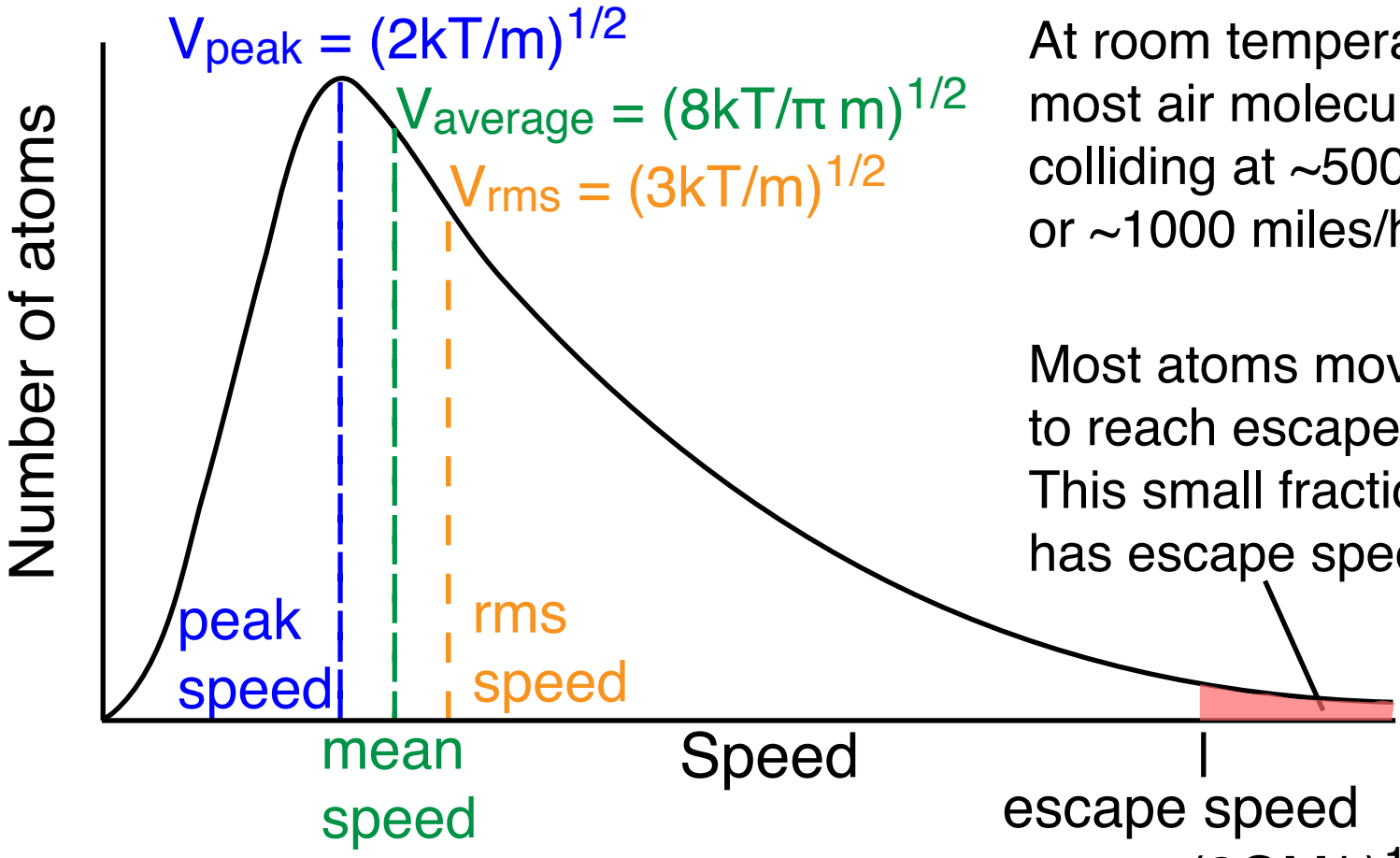

At room temperature most air molecules are colliding at ~500 m/s, or ~1000 miles/hr.

Most atoms move too slow to reach escape speed. This small fraction has escape speed.