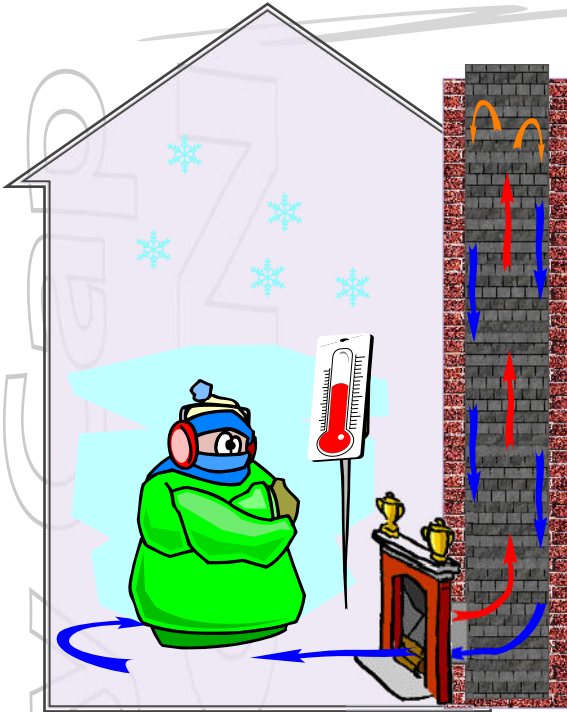


## Cold flue



### The Problem

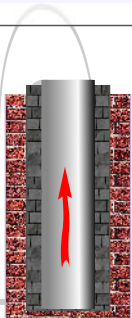
Some old houses have stone or brick chimneys that run outside of a building wall. Bricks (or stones) have an ability to keep cold inside of them and those bricks will cool down nearby air inside of the flue. Cold air is heavier than warm air and if the fireplace is not fired, cold air will drip down along the chimney walls into your room. Warm room air will be sucked back in the flue to replace cold air and air circulation is established. Other than cold, this process will bring the flue fumes inside of your room. Also, this effect will cause you problems if you want to fire up the fireplace. Cold air is heavier and it will push down, creating an air cap and not allowing hot air to escape through the flue. All smoke will go inside of the house until air inside the flue is hot enough to push the cold air cap upward and the flue normal operation is established.

### Short Term Solution

Installing a flue damper on such flues will not give any resolution to this problem because the damper is installed on top of the flue and it does not interrupt the air circulation. Installing a flue balloon near bottom of the flue will solve the problem but it applies only if the flue is not in use and you need to remove the balloon every time you are going to use your fireplace. Also, if you are using your fireplace before bedtime, it will wake you up in the middle of night. The fire will go out eventually, the flue will cool down establishing air circulation and your room will be filled with flue fumes.

### Long Term Solution

This chimney configuration occurs in old houses where flue dimensions are too large for proper performance and reducing the cross section of the flue might benefit the performance of the fireplace. Installing a flue liner will provide additional insulation to prevent air to cool down and reducing the cross section that will eliminate that multi-channel up and down air flow inside of the flue. You need to contact local chimney inspection or sweep services for proper liner sizing (CCD does not sell liners). You will also need a draft inducing cap to enhance performance of the flue, SkyRider or DraftMaster will do the job.



2a



2b

