

# Doors that won't stay open.

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Dave in London, Ontario has a bathroom door that won't stay open. The frame is probably not vertical, or somebody hung the door non-vertical, so you will have to play with the hinges to get gravity working on your side. Always tighten the hinge screws as a first task -- maybe they are in the right place, but simply have come loose -- problem solved. If you do need to adjust the hinges, you can play with both the top and bottom hinge and you can move each in two directions: shimming behind the hinge and moving the hinge towards or away from the stops. Automatic closing. If you move the bottom hinge away from vertical, into the room or towards the latch side of the door, the weight of the door will have to go up-hill to open the door -- which is why it closes by itself. All things like going down hill. Holding open. If you move the top hinge away from vertical, into the room or towards the latch side of the door, the weight of the door will have to go uphill to close the door -- which is why it will always open if not latched. Loose screws on the top hinge have precisely this staying open effect. If this is confusing to you: take a small panel, or even piece of cardboard and put a screw straight up out of the top and straight down out of the bottom of the hinge side. Now hold those two screws so that the panel can swing in your fingers. Lean it one way and another in rather exaggerated movements to get it to swing the way your door does now. That will show you which direction is out of line. Then lean it until it corrects the problem, and you will know which direction you need to move which hinge. Shimming. Shimming the hinges away from the door frame is easiest done by loosening the screws and sliding thick paper stock between the hinge and the frame and then retighten the screws. You will reach a limit where shimming the hinge results in the door sticking on the latch side. Sometimes to avoid having to shave the door, you can "un-shim" the other hinge -- carve out the hinge socket a fraction of an inch into the wood to move the hinge the other way, further into the frame. You can't go far before it will jam on closing, but you can make some effective fine adjustments here. This has the same effect as shimming the other hinge. Shifting the screws. If you need to move the hinge closer or further from the door stop you will need to re-set the screws only a fraction of an inch from their original position -- something that takes a little trick because the screw will want to simply go back into its old hole. First, if you need to go closer to the door stop, you will probably have to carve out the backside of the mortise, the cutout in the door or door frame that receives the hinge. Then dip hardwood toothpicks (the round double pointed ones you use for sandwiches) into carpenter's glue and jam them into the empty screw holes -- cut off the excess wood that is sticking out. Now you can place the screw in the small crack right between the toothpicks and the edge of the hole and as you drive it in, it will shift approximately half the diameter of the screw in the direction you have chosen. Don't force the door for an hour, the time for the glue to set and lock in the toothpicks. By the way, once the glue dries you can repeat the process and move the screw further.

**Keywords:**

Hinges, Shim, Doors, Adjustment, Techniques