

How to Make Clear Ice

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Ever notice that the ice served in a nice restaurant is clear, but the cubes you shake from the ice trays in your freezer come out cloudy and white? **Regular ice** comes out opaque when gasses dissolved in the water get trapped and forced into tiny bubbles, or when ice freezes in a way that doesn't allow large crystals to form. Because of these impurities, cloudy ice is weaker and melts faster than clear, pure ice. "Ice nerds" have found several ways to make "premium" ice without going to a restaurant. Try these methods to make clear ice cubes in your home.

Method
1

Method 1 of 4: The Boiled Water Method



1 Use **pure water**. This method looks to get as much of the air and mineral impurities out of the water as possible before freezing, start with already distilled water. Filtered bottled water will work, or any water purified by reverse osmosis.^[1]



- 2** Boil the water twice. Boiling removes air bubbles from the liquid, allowing the water molecules to stick together even harder in the freezer.
- After boiling the first time, allow the water to cool. Then boil again.
 - Keep the cooling water covered to prevent any dust from collecting on the surface.



- 3** Pour water into an ice tray or other mold and cover with a plastic wrap to keep out particles. Make sure that you have let the water cool a bit before pouring it in the tray so that it doesn't melt the plastic. If you really want to impress, try making extra-large clear ice cubes and ice spheres. Nothing like drinking a cocktail on one very large rock.



4 Place the ice tray in the freezer. Leave it for few hours to freeze.



5 Take out the tray and gently remove your clear ice cubes. [2]

Method 2 of 4: The Top-Down Freezing Method



1 Get a small cooler. Just a regular cooler is fine, like the one you use to keep food and drinks cool for a picnic, but it must be small enough to fit in your freezer. The cooler will insulate your ice cubes, forcing them to freeze slowly from the top down.



2 Place your ice tray, mold or other freezing container at the bottom of the cooler. Do not close the cooler. If you can, use trays that make larger ice cubes, or get a series of small, rectangular plastic or silicone containers.^[3]



- 3 Fill your tray or molds with water.** Proponents of this method claim tap water works as well as distilled and boiled water.



- 4 Pour water into the bottom of the cooler, filling in around your ice tray or molds.** This water will seal off your ice cubes, keeping cold air from freezing the sides or bottom.



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- 5** Place the cooler with the lid off in your freezer. Make sure your freezer is not set too cold—17-25°F (-3 -8°C) should do it. Leave the cooler for 24 hours.



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- 6** Take out your cooler and carefully remove the **block of ice** with your ice tray or molds frozen in it. The ice should have a thin cloudy layer at the top but be clear the rest of the way through.



7 Chip away the ice around your tray or molds and remove your ice cubes.



8 Leave them out for a minute to let the top cloudy later melt off. You now have large, solidly crystal ice cubes.

Method 3 of 4: The High-Temperature Freezing Method



- 1 Set your freezer to just below freezing, around 30°F or -1°C.** This should be the warmest setting on your freezer. If you don't want your whole freezer that warm, set it as low as you are willing and place ice tray on the top shelf.



- 2 Fill an ice tray or mold with water and place it in the freezer.** Leave it to freeze for 24 hours. The slow freeze should force out any gasses and impurities, leaving you with perfectly clear ice cubes.

Unlike the previous methods, this method is a super fast way to create clear ice cubes with no cracks except for the first time you do it. It even works if you put water directly from the tap into the ice cube tray. Air pockets can be eliminated by freezing from the bottom to the top. It can be done by putting the bottom in contact with something really

cold.^[4] It's preferable for the thing under it it's in contact with to be a liquid because that way it can totally cover the bottom conducting heat out of it fast. One convenient liquid to use to cool the ice cube tray is **salt water**.

Method
4

Method 4 of 4: The bottom freezing method



1 Fill up a bowl with water then dump a lot of salt into it to prevent it from freezing then put it in the freezer. Be careful not to put too little water in the bowl or the freezing will release enough heat to warm up the salt water to 0°C before the ice cubes finish freezing. The colder the freezer is, the higher the concentration of salt needs to be to prevent the salt water from freezing. You will learn from experience how much salt is needed for the temperature you normally set your freezer to.



2 Leave the salt water in the freezer at least 3 hours to get really cold.



3 Boil some water, then let it cool to eliminate microscopic bubbles.



4 Take the bowl of salt water out of the freezer to prevent the water in the ice cube tray from freezing from the top.



5 Fill up an ice cube tray with water then float it on the salt water in the freezer **which is denser than fresh water**. The result is bubble free ice that is strong and crack free because it froze without any trapped regions of water ever forming during the process.



6 Put the ice cube tray back in the freezer to prevent melting.



7 Put the bowl of salt water back into the freezer so that you can skip the first step the next time you want to make clear ice cubes.



Community Q&A

Question

How do you make clear ice balls?



wikiHow Staff Editor
Staff Answer

You can buy ice ball makers that are specially designed to produce crystal clear balls, or you can use a basic silicone ice ball mold and try this hack: make a loop in some stiff wire that the mold can rest in, then place the wire over the top of a pot. Fill both the pot and the mold with water. Position the mold on the wire support with the hole facing down into the pot of water, then put the pot and mold in the freezer. The ice ball should come out clear!

Helpful 6 Not Helpful 9

Question

How do you make large blocks of clear ice for carving?



wikiHow Staff Editor
Staff Answer

Line a large metal ice block maker bin with clear plastic to make the ice block easier to remove, then fill the bin with water. Place a small pump in each bin to help keep the water circulating. This will drive bubbles and impurities to the top of the water so that they are all concentrated in one place rather than distributed throughout the ice. Turn on the ice block maker and allow the ice to freeze completely. You should end up with a clear block that has a fairly thin layer of cloudy ice on top, which you can slice off with a saw before carving the block.

Helpful 6 Not Helpful 2

Question

Does clear ice melt more slowly than cloudy ice?



wikiHow Staff Editor
Staff Answer

Cloudy ice contains more air, which can cause it to break apart and melt more quickly. Some people claim that clear ice tastes better than cloudy as well, since it doesn't contain as many gasses and impurities.

Helpful 5 Not Helpful 2

Question

Will the ice stay clear if it's filled up in a cooler and frozen?



Community Answer

Yes, it will.

Helpful 9 Not Helpful 2

Question

If the salt water doesn't freeze, why do I put it in the freezer?



Community Answer

You put the salt water in the freezer to cool it down. The temperature must be below 0° C since you want the ice cubes to freeze when you put the ice cube tray in the salt water. However, the salt water still has to be liquid when you put the ice cube tray in it. That's why you use salt: Salt keeps the water from freezing at temperatures below 0° C.

Helpful 28 Not Helpful 9

Question

How do I make clear ice cubes from an automatic ice maker?



Community Answer

You can't. To make clear ice cubes, you need ultra pure water water that has dissolved gasses removed by heating, and the water needs to freeze from either the top down or the bottom up to further eliminate cloudiness. There are ways to make clear ice cubes at home, but an automatic ice maker can't do it.

Helpful 28 Not Helpful 14

Question

Is there a way to freeze water from the top and bottom at the same time? If so, can someone write an article explaining how to do so?



Community Answer

You wouldn't want to do that. The air bubbles that form need to escape either up or down.

Helpful 27 Not Helpful 14

Question

Why do I have to boil it twice if it's already purified?



Community Answer

Though distilled water is relatively free of mineral impurities, it still has air dissolved in it - boiling the water reduces the amount of gas dissolved in the water.

Helpful 29 Not Helpful 12

Question

How would I make a big block of clear ice to use for an ice sculpture?



Community Answer

You will need a chest freezer or a freezer large enough to fit the ice for your sculpture. I generally use a large cooler, fill it with purified water and place it in my garage chest freezer. It's also a plus if you live up north and can leave it outside on a cold day/night.

Helpful 17 Not Helpful 8

Question

Do you have tips on how to make a 6-inch sphere of clear ice?



Community Answer

You can find round ice molds on sites like Amazon.

Helpful 14 Not Helpful 9



Tips

- There are commercial insulated ice trays you can buy if you can't find a cooler small enough to fit in your freezer.
- Use a stainless steel pan to boil the water instead of an aluminum one.



Warnings

- Be careful when you handle boiling water. It's best to let your water cool down before pouring it into plastic ice trays.

References

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