



CREATING MEMORIES: MAKING HAND AND FOOT MOULDS

Three-dimensional moulds of a baby's hands and/or feet are a wonderful way to provide a family with a tangible reminder of their baby that died. The tiny details that are captured make for a keepsake that will be treasured. They will never forget your efforts.

PERMISSION AND FAMILY PREPARATION

Please remember that creating moulds requires the permission of the family just like taking photographs. Some cultures and/or religions may find this type of memento inappropriate, so always ensure that you have the parents' consent before proceeding. It is also a good idea to prepare the parents that despite your best efforts, sometimes the moulds do not turn out. This is especially true of very tiny babies. Most caregivers rely on the donation of supplies to make these moulds, so confirm that you have the supplies necessary before offering the service to parents.

SUPPLY DETAILS

Alginate: This is a product used primarily for dental impressions. It is available for purchase through dental supply companies or may be donated by local dentists. Alginate that is past the printed expiry date is still acceptable for this use. There are different brands and types of alginate, but we have found that the easiest to work with is the 'regular set' as opposed to the 'fast set'. Please read the instructions on the specific type you are using for mixing ratios of alginate to water as it may vary based on the manufacturer. Getting the right consistency takes some trial and error. Alginate that still 'flows' when a hand or foot is placed in it will give the nicest moulds.

Dental Stone or Plaster of Paris: This is what the final product will be made of. It is poured into the alginate mould and then left to dry. Dental stone comes in multiple colours, and is available from the same dental supply companies or may be donated by dentists. It dries more quickly, and is significantly harder and stronger than plaster of Paris, but is also much more expensive. Plaster of Paris can be purchased at arts and crafts or home renovation supply stores and is much cheaper. It typically comes in an off-white or light-gray colour.

Mixing Supplies: You will need one or two small to medium-sized bowls for mixing, and a good metal or hard plastic spatula. A flexible plastic or rubber bowl will allow for controlled pouring, but the plastic must be strong enough to push against with the spatula to press out lumps while mixing.

Moulding Containers: Pick disposable containers that are an appropriate size for the baby you are casting. Denture cups (hospital supply) are a perfect size for small babies (less than 1200-1500g). Placenta buckets can be used for full-term or larger babies but are a little on the large size. Any type of plastic disposable bowl/container can be used, but they work best if you can cut through them with a scalpel in order to release the mould. Ziploc, margarine, or yogurt containers are good options.

Dental Vibrator: This is not a necessity, but handy to have. It agitates the mould to help raise the bubbles to the surface. Bubbles in the stone/plaster will ruin a mould. A small dental vibrator costs around \$100.

Bits and Bobs: Scalpel (to cut away bowl and remove alginate), superglue (to fix breaks), cotton-tip swabs (to help push little toes down into alginate), and fine grit sandpaper (to soften rough edges).

PROCESS

IMPRESSION

Alginate: Amount will depend on the size of the baby and container.

Cold water: Amount will depend on alginate type and instructions.

Typically, it is a 1:1 ratio.

1. Place alginate in mixing bowl. Ensure that partner is ready with baby as once the alginate is mixed it is important to work quickly.
2. Wet the limb(s) that are to be moulded with a facecloth.
3. Add the water to the mixing bowl and mix quickly, breaking up any lumps against the side of the bowl.
4. When ready, transfer the alginate to the moulding container, ensuring that there is a good amount of space left between top of alginate and top of container (at least $\frac{3}{4}$ - 1"). Smooth out the alginate as best you can.
5. Have partner bring limb close to the surface, and firmly grasp the limb and sink it into the alginate. Ideally the alginate should flow over the top of the limb so you can no longer see it. Be careful not to push the limb too far down as you do not want it

touching the side or bottom of the container. Use a cotton-tip swab to help encourage little toes down if it seems like the heels are immersing but not the toes.

6. Hold very still until alginate sets (quick set 1-2 minutes, regular set up to 5 minutes).
7. Once the alginate is dry to the touch, firmly pull the limb out of the alginate.

Once set, any alginate left in the mixing bowl and on the spatula should just peel away. Clean out the bowl, and start again. Make all your impressions first before filling any moulds. It is always a good idea to make multiple moulds as they don't always turn out.

MOULD

Plaster of Paris or dental stone: Amount will depend on size of baby and container.

Water: Enough to make a slightly runny mixture (the consistency of thick glue or melted ice cream).

* You can make enough of this mixture to fill multiple impressions at one time *

1. Place plaster/stone in clean mixing bowl.
2. Add water and mix with spatula, breaking up lumps against the side of the bowl. This mixture takes longer to set so you can add more water/powder as needed to get the right consistency.
3. Once happy with consistency, pour a small amount into the impression, tilting the container so that the mixture fills the bottom of the fingers/toes first.
4. Tap the container on the counter a few times to encourage any bubbles to the surface before adding more mixture.
5. Continue to fill the impression until the container is full or (in the case of a large container) there is a good $\frac{3}{4}$ - 1" amount of stone/plaster across the whole surface.
6. Tap the container on the counter in an up-and-down motion to encourage the bubbles to the surface. You cannot tap too much. If you continue to see bubbles, keep tapping.
7. If you have a dental vibrator, place the container on the vibrator for a few minutes to help get rid of the smaller bubbles.
8. Take container off vibrator; tap on counter a few more times.
9. Place container aside and let dry.

Dental stone typically sets in 1 – 2 hours. Plaster of Paris can set as quickly as 30 minutes but is more sensitive to humidity. When in doubt, wait longer before attempting to un mould.

Make sure that you wipe out your mixing bowl with paper towel and throw in the garbage before washing the bowl. Plaster and dental stone will both harden in drainpipes, so do not rinse it down the drain!

UNMOULDING

When you are confident that the moulds are dry, lay a towel or cloth over your workspace. Use a scalpel to cut the plastic container. Carefully pull the container away from the mould until the entire alginate/plaster combination comes free. Use the scalpel to cut (or your fingers to peel) small bits of alginate away at a time, keeping in mind that you won't know where little fingers and toes may be located inside the mould. Continue to carefully peel away the alginate until the mould is free. Use a scalpel to "pop" off any little bubbles and to shave down any sharp edges. Fine grit sandpaper can also be used to smooth rough areas on the base of the mould, but should never be used on the moulded hands or feet themselves, as this will destroy the fine details of the mould. If a piece of the mould breaks off it can often be reattached with a little superglue, and often is not even noticeable.

TIPS

- The key to having success with alginate is speed while mixing and getting the limb into the mixture as quickly as possible.
- Adjust your ratios as you work. If alginate was too thick, with next impression add more water.
- Using cold water slows the hardening of the alginate, and gives you more time to work.
- Whenever possible have two people work together.
- One person holding the body (and majority of the weight) of the baby with the second person holding the limb in the alginate works best.
- There is no such thing as too much tapping, so when in doubt, tap some more.
- Ensure your work area has adequate light, counter space, running water, and privacy.
- Some families will appreciate being involved in this process, while others will not. Be open and honest with the family about what to expect, and let them make the decision.
- Holding the baby upside down with an arm hanging allows gravity to open the fingers and can make a beautiful impression.
- Other options include two small feet together, or hands clasped together before pressing into alginate.
- Remember, while you may have to manipulate the baby into awkward positions to attain a beautiful mould, this is someone's child who must be treated with respect at all times.