

Cooking (*Bishul*)

What is the prohibited labor of Cooking?

When the **Mishna** (73a) enumerates the thirty-nine primary categories of prohibited labor, among them is “one who bakes.” The **Gemara** (74b) wonders why “one who cooks” was not stated in the mishna, as, after all, the primary categories of labor are derived from the labor in the Tabernacle, and baking was not part of that labor; rather, there was only cooking (of herbs to produce dyes). The Gemara answers: “Our *tanna* cited the sequence of preparing bread (*sidura dePat*).” In other words, the Mishna preferred to enumerate the labors associated with the preparation of bread (perhaps because in that way it is easier to remember them), and therefore it specifically mentioned baking.

It is clear from the Gemara that there is no fundamental difference between cooking and baking, and both are in **the same primary category of prohibited labor**. Therefore, the *tanna* could enumerate baking even though in the Tabernacle there was only cooking, not baking. This is clear from **Rashi** (74b, s.v. *sidura*), who explains that baking is “cooking bread,” and from the **Rambam** (9:1), who writes: “One who bakes bread, or cooks food or herbs, or heats water, it is all one matter.”

Within the context of the prohibited labor of Cooking, the activities of frying, roasting, or the like are also prohibited. All preparation of food for consumption by means of heat is prohibited by Torah law.

The prohibited labor of Cooking is relevant to substances other than food. The **Gemara** (74b) determines that one who casts a peg into an oven in order to harden and dry it is liable due to Cooking, and the same is true of one who boils pitch in order to melt it. The **Rambam** (9:6) summarizes: “The principle of the matter: For either softening a hard item with fire or hardening a soft item, one is liable due to Cooking.”

When discussing whether in a particular case there is a problem

of Cooking, one must always examine two factors: (1) Is there an actual prohibition of Cooking in that case? (2) Even if we determine that there is no prohibition of Cooking with regard to that food, one must ascertain in what manner is it permitted to heat it on Shabbat. Occasionally, the Sages prohibited heating food due to various concerns, e.g., lest one intensify the fire (“stoke the coals”), or because it “looks like Cooking,” (*mehze keMevashel*) even if there is no actual prohibition of Cooking in that case.

The prohibited labor of Cooking includes numerous *halakhot*, but when one understands the fundamental principles, it is possible to better understand and remember the details of the *halakhot*. Therefore, we will attempt to analyze the principles, and from them to arrive at the practical *halakha* (pp. 273–275).

Cooking: Primary category and subcategory

PRIMARY CATEGORY: Preparing food for consumption by means of the heat of a fire, through cooking, baking, frying, or the like.

SUBCATEGORY: Softening a hard non-food item or hardening a soft non-food item, e.g., metal, tar, or wax (**Rambam** 9:2).

Where was cooking performed in the Tabernacle?

In the Tabernacle, herbs were cooked to produce dyes.

Practical ramifications of the prohibited labor of Cooking

What degree of cooking must one reach in order to be liable for the prohibited labor of Cooking?

Even one who partially cooks an item is apt to be in violation of the prohibition of Cooking. One who cooks a **food item** violates the prohibition of Cooking if the food reaches the level of *maakhal ben Derosai* (*Menaḥot* 57a). This is the stage where it could be eaten

in exigent circumstances. According to the **Rambam** (9:5), the measure is half-cooked, while according to **Rashi** (*Menaḥot* 57a), the measure is one-third cooked. One who cooks a liquid violates the prohibition of Cooking if the liquid reaches a temperature of *yad soledet* (pp. 275–278).

What is the measure of *yad soledet*?

Yad soledet is a temperature hot enough to cause unpleasantness to a hand that touches it and to cause the hand to recoil. It is difficult to quantify that temperature, as sensitivity to heat varies from person to person. The consensus is that temperatures up to 113° F (45° C) are not considered *yad soledet* (*Minḥat Shlomo* vol. 1, 91:8). Therefore, it is permitted to heat water on Shabbat if it cannot reach that temperature.

Yet, only a temperature of 160° F (71° C) is definitely considered *yad soledet*. Therefore, as a stringency, one relates to this temperature as the measure of *yad soledet* (*Iggerot Moshe, Oraḥ Ḥayim* 4:74, *Bishul* 3). For example, we will see that there are those who hold that a boiling liquid that cooled beneath the temperature of *yad soledet* is now considered uncooked, and it is prohibited to reheat it. According to this opinion, one must be stringent and refrain from heating a liquid whose temperature dropped below 160° F (71° C) (pp. 278–280).

Cooking with different heat sources

The Gemara (39a) distinguishes between three types of heat sources:

1. **Cooking with fire or with its derivatives** (*toledot haUr/HaEsh*) (for example, one who heats an egg in a pot that was heated by fire) – prohibited by Torah law.
2. **Cooking with the heat of the sun** – permitted.
3. **Cooking with derivatives of the sun** (*toledot haUr/haHama*) (for example, cooking in a pot that was heated by the sun) – prohibited by rabbinic law, lest people mistakenly cook with derivatives of fire (pp. 280–281).

What is the status of one who cooks in a microwave oven?

The answer is dependent on why cooking with the heat of the sun is permitted. **Rashi** explains: “As it is not its typical manner of cooking.” What does this mean?

According to the *Eglei Tal* (*Ofeh* 44), the **product** of cooking with the heat of the sun is inferior to the product of cooking with fire. Accordingly, when the quality of cooking in a microwave oven is inferior to cooking with fire, there is no prohibition by Torah law.

Iggerot Moshe (*Orah Hayim* 3:52) explains that people do not generally cook with the heat of the sun; therefore it is permitted. Accordingly, since today people are accustomed to cooking in a microwave oven, doing so is prohibited by Torah law.

Rav Shlomo Zalman Auerbach (*Minhat Shlomo* 1:12, note 4) explains that only cooking with fire was prohibited by Torah law. Accordingly, cooking with a microwave oven would be prohibited only by rabbinic law.

Practically speaking, it is prohibited to cook in a microwave in any case; according to many halakhic authorities it is a prohibition by Torah law, and according to other authorities it is a prohibition by rabbinic law. It may be preferable to use a microwave oven to cook for a critically ill patient (pp. 285–288).

Is it permitted to utilize water from a solar-heated water tank?

In many places it is common to install solar-based water heating systems. In such systems, there are black pipes encased in glass on the roof that collect heat from the sun. The water in the solar-heated tank passes through them and is heated. When one opens the hot water faucet in the house, cold water enters the tank, and is heated by the hot pipes. The authorities disagree over whether it is permitted to utilize water from the water tank and indirectly cause additional water to be heated in the tank.

According to *Responsa Tzitz Eliezer* (7:19), heating water in the pipes is considered **cooking with the heat of the sun itself**; therefore,

there is no prohibition. Rav Ovadia Yosef (*Responsa Yabia Omer* 4, *Orah Hayim* 34) rules leniently in that case for a different reason: The person **does not intend** to heat the cold water. Even though it is inevitable that water will be heated, with regard to rabbinic prohibitions, actions that lead to an inevitable consequence are permitted.

By contrast, other authorities hold that the use of water from a solar-heated water tank should be prohibited for a variety of reasons:

1. In their opinion, the heated pipes are considered **derivatives of the sun**, not the sun itself (*Responsa Minhag Yitzhak* 4:44).
2. The water entering the tank is not heated solely by the pipes, but also by the **hot water already in the tank**, which was previously heated by the pipes, making this a case of “derivatives of the sun.” As stated, **Rav Ovadia Yosef** rules leniently in this case, as, in his opinion, the person does not intend to heat the cold water, and the cold water is not invariably heated by the hot water.
3. It is common to activate a **boiler**, which heats the water by means of an electronic heating element, or a gas fire. Were it permitted to utilize the water in the solar-heated water tank, people might inadvertently come to use water that was heated by means of electricity or the gas fire. In that case, the water is considered **derivatives of fire**. If a person utilizes this water, causing cold water to enter the tank and be heated, this may thereby violate the prohibition of Cooking by Torah law (**Rav Shlomo Zalman Auerbach**, cited in *Shemirat Shabbat KeHilkhata* 1, note 127).

PRACTICAL HALAKHA: It is preferable to refrain from utilizing water heated in a solar-heated tank on Shabbat (although there are lenient authorities upon whom one may rely). In exigent circumstances (e.g., for one who is ill, or for a small child) one may be lenient even *lekhatila* (*ab initio*), since in cases of uncertainty involving rabbinic law one may follow the lenient opinion (pp. 293–301).