

# Sij hawm ntev ua kom txias/Kev Tswj Qhov Kub Txias Kom Tej Zaub Mov Zoo Noj (TCS)

## Cooling Time/Temperature Control for Safety Food (TCS)

KEV CHEEM KOM KAB MOB NPES TAWS LIAS TSIS TXHOB LOJ HLOB TUAJ LOS SIS TSIM TEJ KUAB LOM NEEG

### PREVENTING BACTERIA FROM MULTIPLYING OR FORMING TOXINS

#### Hmong

Sij hawm txias uas nyab xeeb thiab theem kub txias

- Cov zaub mov TCS yuav tsum nqis los 135°F mus rau 70°F li ntawm 2 xaub moos thiab txias kiag rau 41°F los sis qis dua li ntawm 6 xaub moos.
- Cov zaub mov TCS uas siv tej khoom ua noj raws li qhov txias ntawm chav ua noj (room temperature) yuav tsum poob kom txias txog 41°F los sis qis dua li ntawm 4 xaub moos.

#### Piv txwv cia zaub mov kom txias

Cov zaub mov chili uas muab ua tau raws li tsim nyog ua yuav txias 135° F mus rau 70° F li ntawm 1 xaub moos. Yuav siv sij hawm tsib xaub moos cov chili mam li txias mus rau 41° F.

Cov xam lav ntses pas thus uas siv cov khoom noj txias li chav ua noj yuav siv li ntawm 4 xaub moos los sis tsawg tshaj ntawd mam li txias los 68° F mus rau 41°F.

#### Piv txwv cia zaub mov kom txias uas tsis nyab xeeb ua

Cov zaub mov chili uas muab ua tau raws li tsim nyog ua yuav txias 135° F mus rau 41° F li ntawm 6 xaub moos, tiam sis thaum xub thawj cia kom txias mus txog 70° F ces yuav

#### English

Safe cooling times and temperatures

- TCS food must be cooled from 135°F to 70°F within 2 hours and completely cooled to 41°F or below within 6 hours.
- TCS food prepared from ingredients at room temperature must be cooled to 41°F or below within 4 hours.

#### Examples of safe cooling

Properly cooked chili is cooled from 135°F to 70°F in 1 hour. Five hours remain to completely cool the chili to 41°F.

Tuna salad prepared from room temperature ingredients is cooled from 68°F to 41°F in 4 hours or less.

#### Examples of unsafe cooling

Properly cooked chili is cooled from 135°F to 41°F in 6 hours, but the initial cooling to 70°F took 3 hours. The chili must be discarded.

siv li 3 xaub moos. Yuav tsum muab cov chili pov tseg.

Cov xam lav ntses pas thus uas siv cov khoom noj txias li chav ua noj yuav txias 68° F mus rau 50° F li ntawm 4 xaub moos. Yuav tsum muab tais xam lav pas thus pov tseg.

## Theem kub txias uas tsis zoo

Theem kub txias uas cov npes taws lias uas tsim kab mob kev nkeeg loj hlob hauv cov zaub mov TCS yog hu uas theem kub txias uas tsis zoo (temperature danger zone).

- Theem kub txias uas tsis zoo yog nyob hauv nruab nrab 41°F thiab 135°F.
- Cov zaub mov TCS yuav tsum dhau tau theem kub txias uas tsis zoo ntawd kom sai li sai tau.
- Cia cov zaub mov kub nyob rau qhov kub thiab zaub mov txias nyob rau qhov txias. Yuav tsum siv lub ntsuas qhov kub txias txhua lub sij hawm los ntsuas seb cov zaub mov kub txias li cas.

## Tswv yim ua kom txias

Siv tej tswv yim hauv qab no los pab cov zaub mov txias sai:

- Muab zaub mov tso rau hauv tej yias uas ntiav ntiav
- Muab cov zaub mov sib faib kom ua tej pawg tsawg
- Muab tais zaub mov tso rau hauv dab dej khov thiab muab do tas li
- Siv tej tais hlau
- Siv dej khov yam li khoom tso rau hauv zaub mov
- Siv twj siv los ua kom txias sai, xws li lub tshuab txias zaub mov

Tuna salad prepared from room temperature ingredients is cooled from 68°F to 50°F in 4 hours. The tuna salad must be discarded.

## Temperature danger zone

The temperature range in which disease causing bacteria grow best in TCS food is called the temperature danger zone.

- The temperature danger zone is between 41°F and 135°F.
- TCS food must pass through the temperature danger zone as quickly as possible.
- Keep hot food hot and cold food cold. Always use a thermometer to check internal food temperatures.

## Cooling methods

Cool food rapidly using one or more of the following cooling methods:

- Place food in shallow pans
- Separate food into smaller or thinner portions
- Place containers in an ice water bath and stir frequently
- Use metal containers
- Add ice as an ingredient
- Use rapid cooling equipment, such as blast chillers
- Use cleaned and sanitized ice wands
- Use other effective methods

- Siv tej pas dej khov uas huv los ua kom txias
- Siv lwm lub tswv yim uas txias tau

Thaum siv twj tuav kom zaub mov txias, cia kom dim pa hauv nruab nrab thiab ib puag ncig cov tais. Yuav tsum tsis txhob cia tej zaub mov tsuas.

When using cold holding equipment to cool food, provide space for air flow between and around containers. Always protect food from contamination.

## Ntaub Ntawv Pab Ntxiv (Resources)

[Minnesota Department of Health Food Business Safety  
\(www.health.state.mn.us/foodbizsafety\)](http://www.health.state.mn.us/foodbizsafety)

Minnesota Department of Health  
Food, Pools, and Lodging Services  
PO Box 64975  
St. Paul, MN 55164-0975  
651-201-4500  
[health.foodlodging@state.mn.us](mailto:health.foodlodging@state.mn.us)  
[www.health.state.mn.us](http://www.health.state.mn.us)

Minnesota Department of Agriculture  
Food and Feed Safety Division  
625 Robert Street N  
St. Paul, MN 55155-2538  
651-201-6027 or 1-800-697-AGRI  
[MDA.FFSD.Info@state.mn.us](mailto:MDA.FFSD.Info@state.mn.us)  
Minnesota Department of Agriculture [www.mda.state.mn.us](http://www.mda.state.mn.us)

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*To obtain this information in a different format, call: 651-201-4500 or 651-201-6000.*

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*Xav tau cov ntaub ntawv no ua tus qauv txawv qhov no, hu rau: 651-201-4500 los sis 651-201-6000.*