



KOMBUCHA KAMP 

# DIY GUIDE

LACTO-FERMENTED SODAS

Featuring:

Water & Coconut Kefir

Milk Kefir & Kefir Cheese

Beet & Fruit Kvass

Ginger & Turmeric Bug



# KOMBUCHA KAMP



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CHANGING THE WORLD, ONE GUT AT A TIME.



KOMBUCHA KAMP  
Trust Your Gut



# KOMBUCHA KAMP

## INTRODUCTION TO LACTO-FERMENTED SODAS



### **TREAT YOURSELF TO FERMENTATION FUN!**

Fermented foods and drinks have sustained us bacterio-sapiens since ancient times. They provided vital nutrition during harsh winters and protected us from waterborne illnesses before clean water was available. The secret to this magic is the good bacteria that aid in fermentation, which has been crucial for our health and longevity.

Over 500 bacteria and yeast types work tirelessly in our gut to support our immune system by digesting food and safeguarding us from pathogens. Unfortunately, the advent of processed foods after WWII caused the loss of traditional fermentation practices, which had serious repercussions. As convenience foods like cake mixes, TV dinners, and Crisco took over American kitchens, the time-honored methods of food preparation and preservation disappeared, contributing to a surge in diabetes, cancer, and autoimmune diseases. Add to this the harmful effects of the "germ theory," and we've unwittingly been fighting against both bad and beneficial bacteria.

Embracing fermented beverages means returning to our roots and boosting our immunity with bacteria that keep us healthy. They're easy to make, bursting with flavor, and inexpensive. Some rely on airborne bacteria and yeast, while others require a culture that reproduces endlessly. How can you tell if fermentation is working? Look for the fizz!

Fizz is a natural craving for humans, as it signals the presence of yeast and trace B vitamins that boost energy and immunity. Our ancestors recognized the magic of fermentation by the appearance of foamy bubbles, as the root word for yeast, "jest," means to boil or bubble. With this Mini DIY Guide, you can satisfy your fizz cravings without unhealthy chemicals or empty calories. Your body will absorb the healthy bacteria and nutrients in a recognizable, living form. Your family will enjoy the tasty and simple process of brewing these probiotic sodas at home.



## SUPPLIES:

- 4 cups chlorine-free water
- ¼ cup of Sugar (cane, brown, or white)
- 2 Tbsp Water Kefir Grains
- 1 QT (or larger) glass container
- Plastic lid or cloth cover w/ rubber band

## OPTIONAL ADD-ONS:

(PICK ONE)

- 4 raisins
- ½ a fig
- 1 slice of ginger
- 1 slice of lemon
- 1 dash of molasses

## DIRECTIONS:

01

Add 4 cups chlorine-free water to a clean glass jar.

02

Add ¼ cup of sugar to the jar and stir to dissolve.

03

Add entire contents of Water Kefir packet including any liquid.

04

Cover the jar with a plastic lid, custom or cloth cover and rubber band.

05

Place the jar out of direct sunlight for 24-48 hours.

Ideal temp. range: 68-78°F (20-26°C)  
- See FERMENTATION TIME chart

06

Strain the liquid to remove the grains and set them aside covered for the next batch.

07

Add flavors to the Water Kefir for a second fermentation in bottles or enjoy the kefir straight.

08

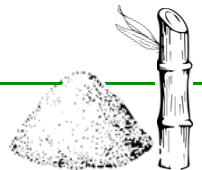
Repeat steps 1-7 & enjoy!

## FERMENTATION TIME:

GRAINS	SUGAR	TEMPERATURE	FERMENT
2 TBSP	¼ CUP	76-78°F (24-25°C)	2-3 days
2 TBSP	¼ CUP	70-75°F (21-23°C)	3-4 days
2 TBSP	¼ CUP	65-70°F (18-21°C)	4-5 days
2 TBSP	¼ CUP	below 65°F (18°C)	5+ days



Do not allow to ferment for more than 72 hours without proper sugar to grain ratio. Grains will starve and eat themselves.



### ⚠️ HEY SUGAR!

Organic sugar is best but sugars with higher mineral content, such as rapadura, piloncillo, or turbinado, may also help the grains reproduce.

Molasses as an additive is okay but avoid raw honey.

### ⚠️ PLASTIC VS METAL

Cheesecloth, plastic or metal strainers are all acceptable as such brief contact will not affect the cultures.

### ⚠️ TYPES OF WATER

Spring water is best. Use fluoride-free, chlorine free or chloramine free water.

Filtered, distilled, or RO water brews often benefit from adding one or more optional mineral boosters (molasses, figs, raisins, or lemon slices.)

### ⚠️ IS IT WORKING?

Kefir grains are very hardy and usually work immediately. Keep an eye out for any of these fermentation signs:

- Sour/sweet flavor
- Small bubbles.
- Cloudy liquid.
- Bobbing raisins.



### SUPPLIES:

- 4 cups Coconut Water
- ¼ cup of Sugar (cane, brown, or white)
- 2 Tbsp Water Kefir Grains
- 1 QT (or larger) glass container
- Plastic lid or cloth cover w/ rubber band

### DIRECTIONS:

01

Add 4 cups coconut water to a clean glass jar.

02

Add ¼ cup of sugar to the jar and stir to dissolve.

03

Add entire contents of Water Kefir packet including any liquid.

04

Cover the jar with a plastic lid, custom or cloth cover and rubber band.

05

Place the jar out of direct sunlight for 24-48 hours.

Ideal temp. range: 68-78°F (20-26°C)  
- SEE CHART

06

Strain the liquid to remove the grains and set them aside covered for the next batch.

07

Add flavors to the Water Kefir for a second fermentation in bottles or enjoy the kefir straight.

08

Repeat steps 1-7 & enjoy!

### FERMENTATION TIME:

GRAINS	SUGAR	TEMPERATURE	FERMENT
2 TBSP	¼ CUP	76-78°F (24-25°C)	2-3 days
2 TBSP	¼ CUP	70-75°F (21-23°C)	3-4 days
2 TBSP	¼ CUP	65-70°F (18-21°C)	4-5 days
2 TBSP	¼ CUP	below 65°F (18°C)	5+ days



### CONSIDERATIONS

Those controlling for candida may wish to omit the sugar to prevent feeding the yeast in their gut.



### HEALTH BENEFITS

Coconut water provides electrolytes, minerals and superior hydration. When fermented, those benefits are magnified and this tasty quaff also helps calm candida woes with the presence of caprylic acid.

Coconut water alone does not provide enough nutrition for the grains to reproduce and frankly, we find the flavor is better when sugar is used as well.



### LONG-TERM STORAGE

Rest the grains in sugar water for 24-48 hours after every batch of coconut kefir or at least once a week to prevent grain loss over time.

### FLAVOR SUGGESTIONS

#### FRUITY REFRESHER

- Fresh berries – sliced
- Squeeze of lime

#### GINGER FIZZ

- Slice of fresh ginger
- Squeeze of lemon

#### CREAMY VANILLA DREAM

- 1/8 vanilla bean
- ¼ tsp honey or sugar

## INGREDIENTS:

- 2 cups of whole fat milk
- 1 Tbsp Milk Kefir Grains

## SUPPLIES:

- 1 QT (or larger) glass container
- Plastic lid or cloth cover w/ rubber band

## DIRECTIONS:

### 01

Add 2 cups of whole milk to a clean glass jar. Use organic mammal milk for best results.

### 02

Add entire contents of Milk Kefir packet including any liquid.

### 03

Cover the jar with a plastic lid or cloth cover and rubber band.

### 04

Place the jar out of direct sunlight for 12-48 hours.

Ideal temp. range: 75-82°F (23-27°C).

### 05

After 12-48 hours, stir the contents and taste test to determine readiness.

### 06

Before straining, break up contents with spoon or shake to loosen grains. Strain Kefir through a cheesecloth or other strainer.

Set the grains aside in a covered dish for the next batch.

### 07

Add fruit/flavors to the Milk Kefir for second fermentation, in a smoothie blend, or enjoy it straight.

### 08

Repeat steps 1-7 & enjoy!

## FERMENTATION TIME:

GRAINS	MILK	TEMPERATURE	FERMENT
1 TBSP	2 CUPS	over 78°F (25°C)	1 day
1 TBSP	2 CUPS	76-78°F (24-25°C)	2-3 days
1 TBSP	2 CUPS	70-75°F (21-23°C)	3-4 days
1 TBSP	2 CUPS	65-70°F (18-21°C)	4-5 days
1 TBSP	2 CUPS	below 65°F (18°C)	5+ days



Ferment times may vary depending on temperature, milk-to-grain ratio, and overall health of the grains.



Do not allow to ferment for more than 72 hours without proper amount of milk. Grains will starve and eat itself.



### GOT MILK?

Any whole fat mammal milk, pasteurized or raw, works for the grains. The living bacteria in raw milk may compete with the native kefir bacteria, to varying results.



### TASTE & SMELL

The Milk Kefir will have a sour smell and sweet-to-sour fermented flavor, but not spoiled or rotten.

The taste may be similar to yogurt or cheese. Harvest whenever you enjoy the flavor.



### PLASTIC VS METAL

Cheesecloth, plastic and metal strainers are all acceptable as the brief contact will not adversely affect the cultures.



### CURDS & WHEY

Whey and clumps will separate during the fermenting process. The Kefir is done when a layer of whey (clear liquid) is visible in the curds (thick milky part) towards the bottom of the jar.

## INGREDIENTS:

- 2 Cups Whole Milk (Raw or Pasteurized)
- 1 Tablespoon Milk Kefir Grains

## SUPPLIES:

- 1 Quart Glass Container
- Strainer or Cheesecloth
- Plastic Lid or Cloth Cover w/ Rubber Band

## DIRECTIONS:

### 01

Add 2 cups of whole milk to a clean glass jar. Use organic mammal milk for best results.

### 02

Add Milk Kefir grains to the jar. Cover the jar with a plastic lid or cloth cover and rubber band.

### 03

Place the jar out of direct sunlight for 12-48 hours.

Ideal temp. range:  
65-75°F (18-24°C).

### 04

After 12-48 hours, stir the contents and taste test to determine readiness.

The milk kefir will be slightly fizzy with a pleasantly sweet (not sugary) taste.

### 05

Before straining, break up contents with spoon or shake to loosen grains. Strain Kefir through a cheesecloth or other strainer.

Set the grains aside in a covered dish for the next batch.

## FLAVOR SUGGESTIONS:

### CHOCOLATE "SHAKE"

- 1 TB cacao powder
- Dash of vanilla extract
- Sweetener to taste
- Blend

### STRAWBERRY FROTH

- Fresh strawberries
- Mint leaves
- Blend

### TROPICAL SMOOTHIE

- Mango/Pineapple/Passion fruit
- Honey to taste
- Blend



## CONSIDERATIONS

Grains do NOT need to be rinsed between uses.

Leaving kefir grains in milk for longer than 48 hours run the risk of starvation. Move to the fridge for longer term storage.

2nd ferment milk kefir by adding fruit or other flavors. Let it remain loosely covered at room temperature to build carbonation.



GET MILK KEFIR

[www.kombuchakamp.com/  
milk-kefir-grains.html](http://www.kombuchakamp.com/milk-kefir-grains.html)



MILK KEFIR FAQ

[www.kombuchakamp.com/  
milk-kefir-faq-frequently-asked-questions](http://www.kombuchakamp.com/milk-kefir-faq-frequently-asked-questions)



## KEFIR CHEESE

### INGREDIENTS:

- 2 Cups Kefir Milk
- 1 Tablespoon Milk Kefir Grains

### SUPPLIES:

- 1 Quart Glass Container
- Colander or Strainer
- Cheesecloth or Nut Milk Bag
- Spoon or Spatula
- Bowl



### DIRECTIONS:

01

Add 2 cups of milk to a clean glass jar.

Best milk to use is raw milk.

If not available then use pasteurized whole milk.

02

Add milk kefir grains to the whole milk.

03

Cover with the plastic lid or cloth cover & rubber band.

Let sit for 24-48 hours.

04

The milk kefir will be slightly fizzy with a pleasantly sweet (not sugary) taste. You may add flavors for a second fermentation or drink straight.

## KEFIR CHEESE DIP

### INGREDIENTS:

- 2 Cups Kefir Cheese
- 1 Clove of Garlic
- 2 Tablespoons Olive Oil
- 1 Teaspoon Himalayan Pink Salt
- Handful of fresh herbs (finely chopped)- thyme, rosemary, oregano, basil

### DIRECTIONS:

01

Combine ingredients until smooth. Season to taste.

The garlic will impart a more robust flavor the longer the dip sits.

02

Serve with fresh veggies, pita chips or your favorite dipping nosh.



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[www.kombuchakamp.com](http://www.kombuchakamp.com)

### INGREDIENTS:

- 1 Cup Whey
- 1 Quart Fresh Juices & Berries

### SUPPLIES:

- 1 Gallon Glass Jar
- Decant bottles

### DIRECTIONS:

#### 01

Use 1 cup of whey per quart of fresh juices & berries.

#### 02

Infuse the herbs in water, then strain before adding the whey.

If the fruit isn't sweet enough on its own, add 1TB of sugar to help the fermentation process along.

#### 03

Allow the ingredients to infuse for 12-24 hours, then strain into bottles for longer term storage.

If stronger flavor is preferred, ferment a little longer.



### NO WHEY?

The by-product of making kefir cheese is whey. Whey is a bacteria rich liquid that can be used in soups, smoothies or to feed pets. It also works as starter for cultured veggies and to make flavored sodas.



GET MILK KEFIR

[www.kombuchakamp.com/  
milk-kefir-grains.html](http://www.kombuchakamp.com/milk-kefir-grains.html)

### FLAVOR SUGGESTIONS:

#### GINGER LIME ALE

- Fresh ginger
- Squeeze of lime juice

#### HIBISCUS ROSE

- Hibiscus flowers
- Rosehips

#### GRAPE TWIST

- Grape juice
- Orange juice

#### CIDER RUSH

- Apple juice or apple cider,
- Cinnamon stick

#### GARDEN DEW

- Rosemary
- Thyme
- Lavender
- Other fresh herbs

#### MINTY FRESH

- Mint leaves
- Green tea bag

#### LAVENDER LEMONADE

- Fresh lavender flowers
- Half a lemon
- Fresh ginger

#### DEW BERRY

- Honeydew melon
- Fresh raspberries or blueberries

#### PINK LEMONADE

- Strawberries
- Half a lemon
- Thyme

#### ROOT BEER

- Vanilla
- Sarsaparilla
- Sassafras
- Wintergreen

## INGREDIENTS:

- 1-2 Ginger or Turmeric Roots (Fresh)
- ½ Cup Sugar
- 2 Cups Water
- Optional: 1 Teaspoon Molasses

## SUPPLIES:

- 1 Quart Glass Container
- Cloth Cover w/ Rubber Band



## DIRECTIONS:

01

Grate or finely chop the ginger or turmeric root to yield 2-3 tablespoons of grated root.

02

Add the grated root to the glass container and cover with an equal amount of sugar (2-3 tablespoons).

Some add 1 tsp of molasses for additional flavor and mineral content.

03

Pour 2 cups of dechlorinated water over the mixture and stir with a spoon.

04

Cover a cloth cover & rubber band and place in a warm, drafty area. If you have other ferments going, store it nearby so it will pick up yeast.

05

Every day, for the next 5-7 days, feed the bug by adding 1 tablespoon of grated root and 1 tablespoon of sugar, then stir.

Signs of fermentation include bubbles, cloudy liquid and a yeasty smell.

06

Once it has built up enough strength, then use ¼ cup of bug per 4 cups of substrate\*.

07

Feed daily or rest in the fridge, feeding it every 7 days. Reactivate by bringing to room temperature and feeding it (1 TB ginger & 1 TB sugar).



### KOMBUCHA MAMMA SEZ...

Ginger and turmeric are rhizomes (roots) that reduce inflammation, boost immunity and support healthy digestion. The bacteria present on the roots merge with wild yeast that feed on the sugar creating a unique culture that yields tasty treats.

The by-product of making kefir cheese is whey. Whey is a bacteria rich liquid that can be used in soups, smoothies or to feed pets.



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[www.kombuchakamp.com](http://www.kombuchakamp.com)



## INGREDIENTS:

- 3lbs Beets (cubed 1/2 inch)
- 2 Teaspoons Himalayan Pink Salt
- Filtered or Spring Water
- Optional: Salt
- Optional: Whey

## SUPPLIES:

- 1 Gallon Glass Jar
- Cloth Cover w/ Rubber Band or Jar Lid



## DIRECTIONS:

### 01

Place beet cubes into a 1 gallon jar or fermentation crock.

### 02

Cover with water until the jar is nearly full.

Leave one inch of headspace and completely submerge the beets.

### 03 (OPTIONAL)

Add salt & whey.

### 04

Cover with cloth cover or lid.

### 05

Allow the kvass to ferment at room temperature for at least 1 week before straining and serving.

### 06

Skim off any visible mold.

### 07

Decant into bottles, chill and enjoy!



### KOMBUCHA MAMMA SEZ...

"Use extra Kvass in soups or salad dressings for flavor and a liver/blood cleansing kick!"



### BEET-ER THAN NOTHING

Beet kvass is a nourishing tonic that has a sweet and salty tang that is indescribably delicious. My favorite part is the pink 'stache left behind from sipping kvass.

It is fermented, not by adding a starter, but rather by the yeast and bacteria naturally present on the beets. It can also be started using whey (see page 11).

While some recommend using an airlock with kvass, I've found the flavor to be tastier when fermented with a cloth cover. It may grow a layer of fuzzy mold on top – if your immune system is strong, simply spoon it off before consuming or bottling.

For those with weaker immune systems, moldy brews should NOT be consumed.

Leftover beets may be used in salads or side dishes. Some folks may also like to get another round of kvass out of them before discarding.

## INGREDIENTS:

- 1-2 cups fresh fruit (sliced or whole)
- 1 Tbsp Raw Honey or Sugar
- Filtered or Spring Water
- Optional: 1 Inch Grated Ginger

## SUPPLIES:

- 1 glass jar with lid (min 1 quart)



## DIRECTIONS:

01

Prep your fruits, spice, and herbs.  
Slice as needed to fit the jar.

02

Add the ingredients into the glass jar  
and top with sugar or raw honey.

03

Add water to fill up the jar. Leave  
about an inch from the top for  
headspace.

This allows room for the pressure  
from the natural carbonation to build.

04

Tightly close the jar. Leave at room  
temperature for 2-3 days.

Fermentation bubbles will appear  
within 24 hours.

05

Burp and jostle the jar each day so it  
doesn't get too fizzy or grow any  
mold.

06

Ferment to taste, then strain out the  
fruits and store in the fridge.

Refrigerate for up to 1 week.

## KVASS COMBINATIONS:

- Cherry, Raspberry, & Cardamom
- Apple, Raisins, & Cinnamon
- Lemon, Dried Apricots, & Ginger
- Mango & Chai Spices
- Beet, Apple, & Lemon Balm
- Nectarine & Chamomile
- Blackberry, Peaches, & Vanilla Bean
- Dried Prunes, Lemon, Ginger



### CUSTOMIZE

Use your favorite in season fruits or  
those that are just slightly overripe.  
Combine fruits with fresh herbs and  
spices to create unique and healthy  
flavors.



### NEW TO FERMENTS?

Start with 4oz for 2-3 weeks. Note  
any changes and reactions. Increase  
intake gradually as your body gets  
used to fermented drinks. Drink up  
to 16oz a day.



LEARN MORE AT  
[www.kombuchakamp.com](http://www.kombuchakamp.com)



KOMBUCHA KAMP

# DIY GUIDE

LACTO-FERMENTED SODAS



We hope this short guide shows you how easy it is to make a variety of healthy fermented food and drink at home. Trust Your Gut.

☺️♥️, Hannah

