

# White Whole Wheat Breadstick

**Makes:** 100 servings

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Ingredients	Weight	Measure
White Whole Wheat Flour	3 lbs 12 oz	
Enriched all-purpose flour	3 lbs. 8 oz	
Non-fat dry milk	7 oz	
Granulated sugar	11.5 oz	1 ¾ cup
Instant dry yeast	3 oz	½ cup
Salt	1.75 oz	2 Tbsp, 2 tsp
Vegetable oil		1 2/3 cup
Water	4 lb 6 oz	2 qt, ¼ cup
Non-stick cooking spray	As needed	

## Nutrition Information

Key Nutrients	Amount	% Daily Value
<b>Total Calories</b>	<b>167</b>	
Total Fat	4.12 g	
Protein	4.67 g	
Carbohydrates	28.75 g	
Dietary Fiber	2.5 g	
Saturated Fat	0.61 g	
Sodium	205 mg	

## Directions

1. Place flour, dry milk, sugar, yeast, and salt in mixer bowl.
2. Blend with dough hook for approximately 2 minutes on low speed.
3. Add oil and blend for approximately 2 minutes on low speed.
4. Add first amount of water to the dry ingredients. If dough appears too stiff, add up to 1 cup extra water per 100 servings. More or less water can be added as needed.

5. Knead dough on medium speed for 8-10 minutes until dough is properly developed. Use the gluten stretch test. (At 8 minutes, stretch the dough like a rope. If it breaks, continue to mix 2 additional minutes).
6. Form dough into two pound balls and spray with non-stick cooking spray or cover with plastic wrap. Once all dough balls have been formed, begin shaping.
7. Form rolls from dough by pinching off 2 oz. pieces and shaping into sticks 5-6 inches in length. Place sticks in rows of 6 across and 8 down on sheet pans (18" x 26" x 1/2") which have been lightly coated with non-stick cooking spray.
8. Place in a warm area (about 90°F) until double in size, approximately 45-60 minutes.
9. Bake until lightly browned: Conventional oven: 400°F for 18-20 minutes Convection oven: 350°F for 12-14 minutes
10. Recommend internal temperature for baked whole wheat rolls is 196-198°F.

## Notes

### Additional Tips

Dough made with whole flour will absorb more water and requires increased rising/proofing time. Mixing time is less because the bran from the whole grain cuts through developing gluten strands with increased mixing resulting in a product with low volume. Even an additional one minute mixing time with whole grains can make a difference in quality. Figuring water temperature so that the final dough temperature is ~80° is essential for quality bread products.

Rolls will have a better appearance if lightly sprayed with non-stick cooking spray when they come out of the oven.