

1 Supplemental Table 1. Nutrient contents of test meals in clinical assessment of glycemic response from commercial Russet Burbank potato  
 2 products

	Serving size of the test potato products (g/serving)	Serving size of the whole test meal (g/serving)	Calories (calorie/ serving)	Protein (g/serving)	Fat (g/serving)	Carbohydrate (g/serving)	Fiber (g/serving)	Sugar (g/serving)
	Breakfast <sup>1</sup>							
French fries	213	319	483	20.7	26.2	51	4	0.4
Home fries	234	340	416	21.4	19	51	5.4	2.7
Hash browns	213	319	483	20.7	26.2	51	4	0.4
Pancakes control	60	226	420	22	20.5	51	6	11
	Lunch <sup>2</sup>							
Standard meal	NA <sup>3</sup>	300	530	23	21.5	63	3	6

3 <sup>1</sup> In breakfast, a test commercial potato product was served as the only carbohydrate source to participants with scrambled eggs (50 g/serving) and  
 4 sausage patty (56 g/serving), while the control pancakes were served to participants with scrambled eggs (50 g/serving), sausage patty (56  
 5 g/serving) as well as sugar-free maple syrup (60 g/serving).

6 <sup>2</sup> In lunch, a standard meal was provided to all participants including turkey (56 g/serving), cheese (21 g/serving), mayonnaise (14 g/serving),  
 7 lettuce (8 g/serving), bread (57 g/serving), pretzels (42 g/serving), Jell-O (92 g/serving), whipped cream (9 g/serving), and kool-aid (1 g/serving).<sup>3</sup>

8 <sup>3</sup> NA indicated that neither the test potato products nor control pancakes were served to participants.

Supplemental Table 2. Contents of caffeoylquinic acids in fresh potatoes and commercial potato products

mg/100 g DW		3-CQA	4-CQA	5-CQA	Total
Freshly prepared potato products					
Russet Burbank	Peel	93.8 ± 18b	2.52 ± 1.1	141 ± 19b	237 ± 38b
	Flesh	8.91 ± 1.0a	0.880 ± 0.16	30.4 ± 2.4a	40.2 ± 3.6a
Shepody	Peel	63.8 ± 13b	1.30 ± 0.32	77.5 ± 11b	143 ± 24b
	Flesh	4.33 ± 1.3a	0.885 ± 0.33	29.0 ± 3.8a	34.2 ± 4.9a
Commercial potato products					
Russet Burbank	French fries	5.78 ± 1.5b	32.0 ± 6.7b	179 ± 30b	217 ± 39b
	Home fries	2.52 ± 1.4ab	9.69 ± 3.5a	54.4 ± 13a	66.6 ± 18a
	Hash browns	1.26 ± 0.098a	6.81 ± 0.86a	54.9 ± 5.8a	62.9 ± 6.8a
Shepody	French fries	0.851 ± 0.22a	6.08 ± 0.63a	49.5 ± 5.6	56.5 ± 6.3
	Home fries	4.76 ± 0.53b	14.0 ± 1.6b	46.5 ± 6.0	65.3 ± 8.1

<sup>4</sup> Presence of different letters indicated statistical difference in phenolic contents among potato products derived from the same cultivar ( $p < 0.05$ ).

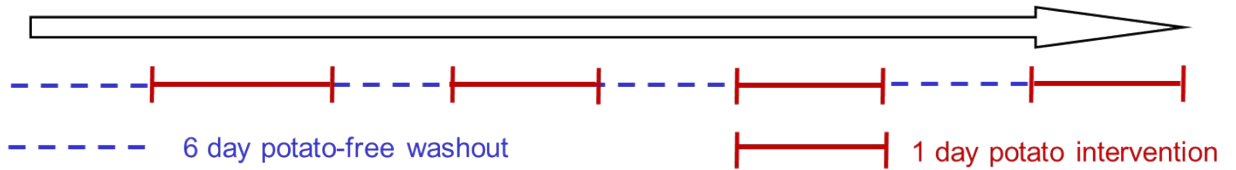
Supplemental Table 3. Phenolic bioaccessibility of re-constituted commercial potato products <sup>5</sup>

		3-CQA	4-CQA	5-CQA
Relative bioaccessibility (%)				
Russet Burbank	French fries	44.8 ± 15 %	103 ± 8.4 %	34.4 ± 4.4 %
	Home fries	51.7 ± 12 %	123 ± 25 %	56.8 ± 13 %
	Hash browns	29.4 ± 8.2 %	117 ± 15 %	42.0 ± 10 %
Shepody	French fries	35.3 ± 11 %	93.0 ± 20 %	44.6 ± 23 %
	Home fries	23.4 ± 7.1 %	105 ± 24 %	12.3 ± 3.4 %
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Absolute bioaccessibility (µg per 1 oz serving)				
Russet Burbank	French fries	143 ± 47b	150 ± 12b	929 ± 120
	Home fries	80.8 ± 18b	334 ± 67c	821 ± 190
	Hash browns	35.4 ± 9.9a	86.9 ± 11a	404 ± 99
Shepody	French fries	28.1 ± 8.5	51.7 ± 11	305 ± 160
	Home fries	91.8 ± 28	46.3 ± 10	112 ± 31

<sup>5</sup> Presence of different letters indicated statistical difference in starch contents among potato products derived from the same cultivar ( $p < 0.05$ ).

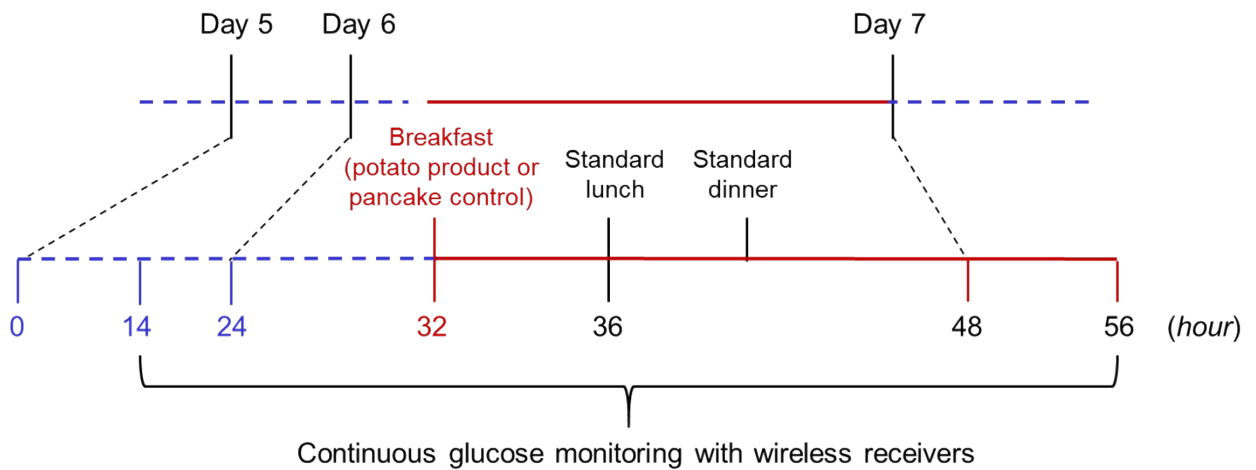
# Clinic study design

(randomized intervention of commercial potato products)



Group A:	French fry	↔	Home fry	↔	Hash brown	↔	Control
Group B:	Hash brown	↔	Home fry	↔	Control	↔	French fry
Group C:	Hash brown	↔	French fry	↔	Home fry	↔	Control
Group D:	Control	↔	French fry	↔	Home fry	↔	Hash brown

## 1 day intervention details



Breakfast formulations (50 g available carbohydrate per serving)

- Test: a commercial Russet Burbank potato product + calorie-free beverage
- Control: whole grain wheat pancake from Hodgson's Mill + calorie-free beverage

Supplemental Figure 1