

# 2023: It is time to re-think dietary management in patients with chronic kidney disease

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## Health effects of the New Nordic Renal Diet in patients with stage 3 and 4 chronic kidney disease

P252-W

### Background

- 1 in 10 adults suffers from chronic kidney disease (>800 million people worldwide)
- Reduced kidney function leads to accumulation of waste products in the blood
  - **Increased risk factors:** High blood pressure, accumulations of lipids and uremic toxins, metabolic acidosis, cardiovascular disease, premature mortality

### The New Nordic Renal Diet (NNRD):

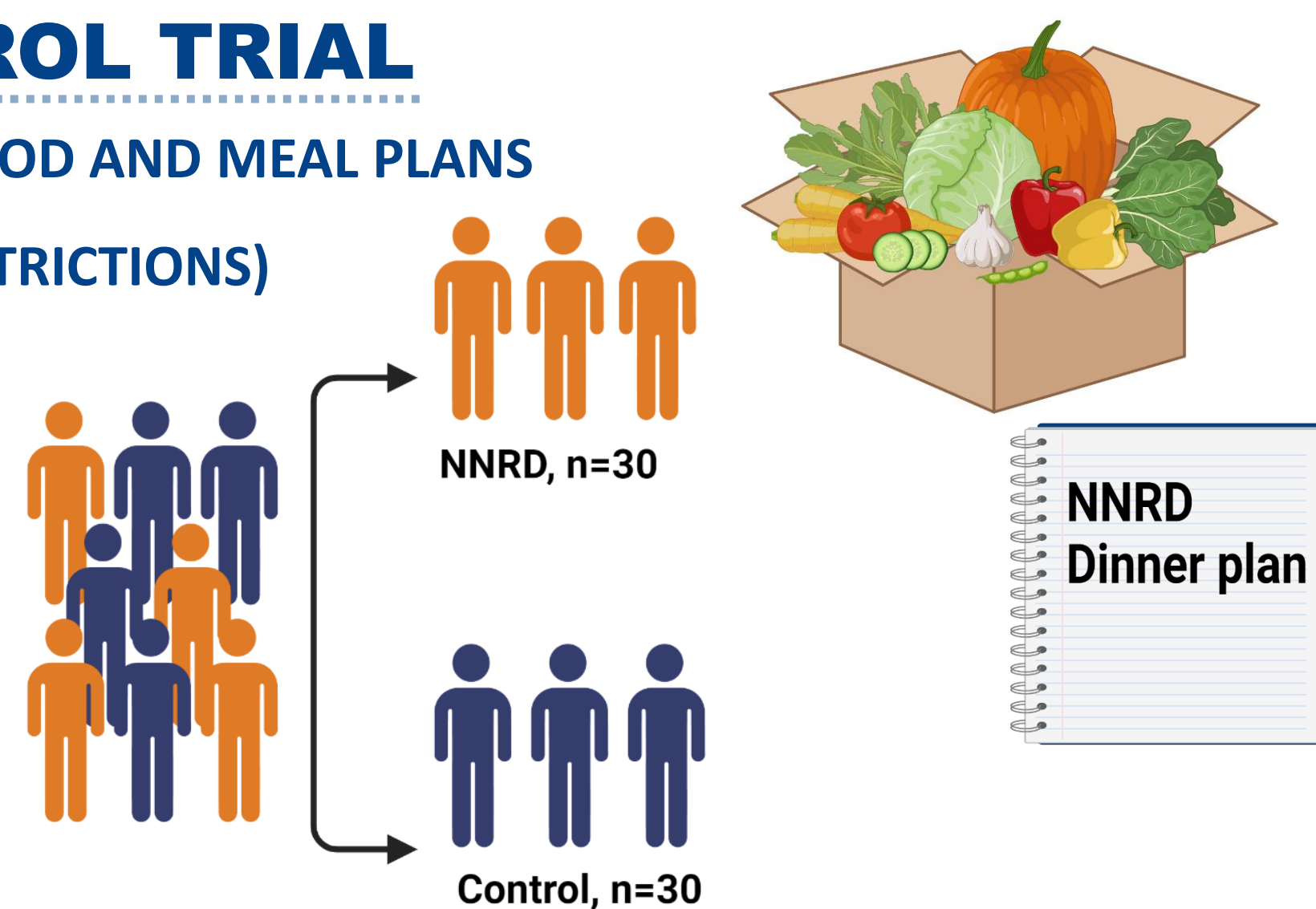
Energy: 30-35 kcal/kg/day; Protein: 0.8 g/kg/day; Phosphorus: 850 mg/day; Potassium: 3.000 mg/day; Sodium chloride: <5 g/day

### 6 MONTHS RANDOMIZED CONTROL TRIAL

- NNRD GROUP: WEEKLY HOME DELIVERY OF FREE FOOD AND MEAL PLANS
- CONTROL GROUP: HABITUAL DIET (NO DIETARY RESTRICTIONS)

#### ELIGIBILITY

- Age >18
- eGFR 20-45 ml/min/1.73 m<sup>2</sup>
- Medically stable for two months
- Comprehend Danish
- No treatment with phosphate binders
- No food intolerances

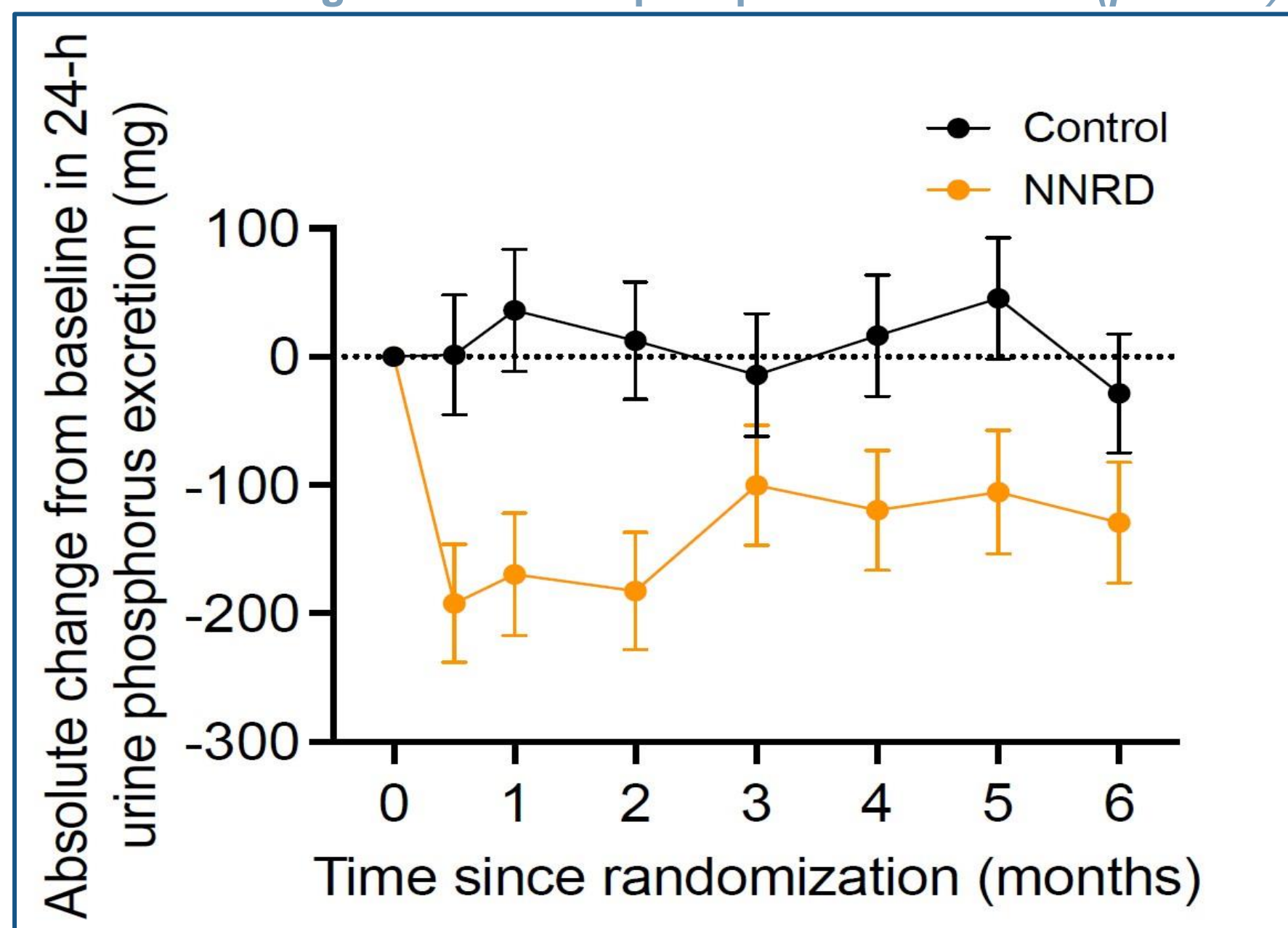


### MEASUREMENTS DURING MONTHLY STUDY VISITS

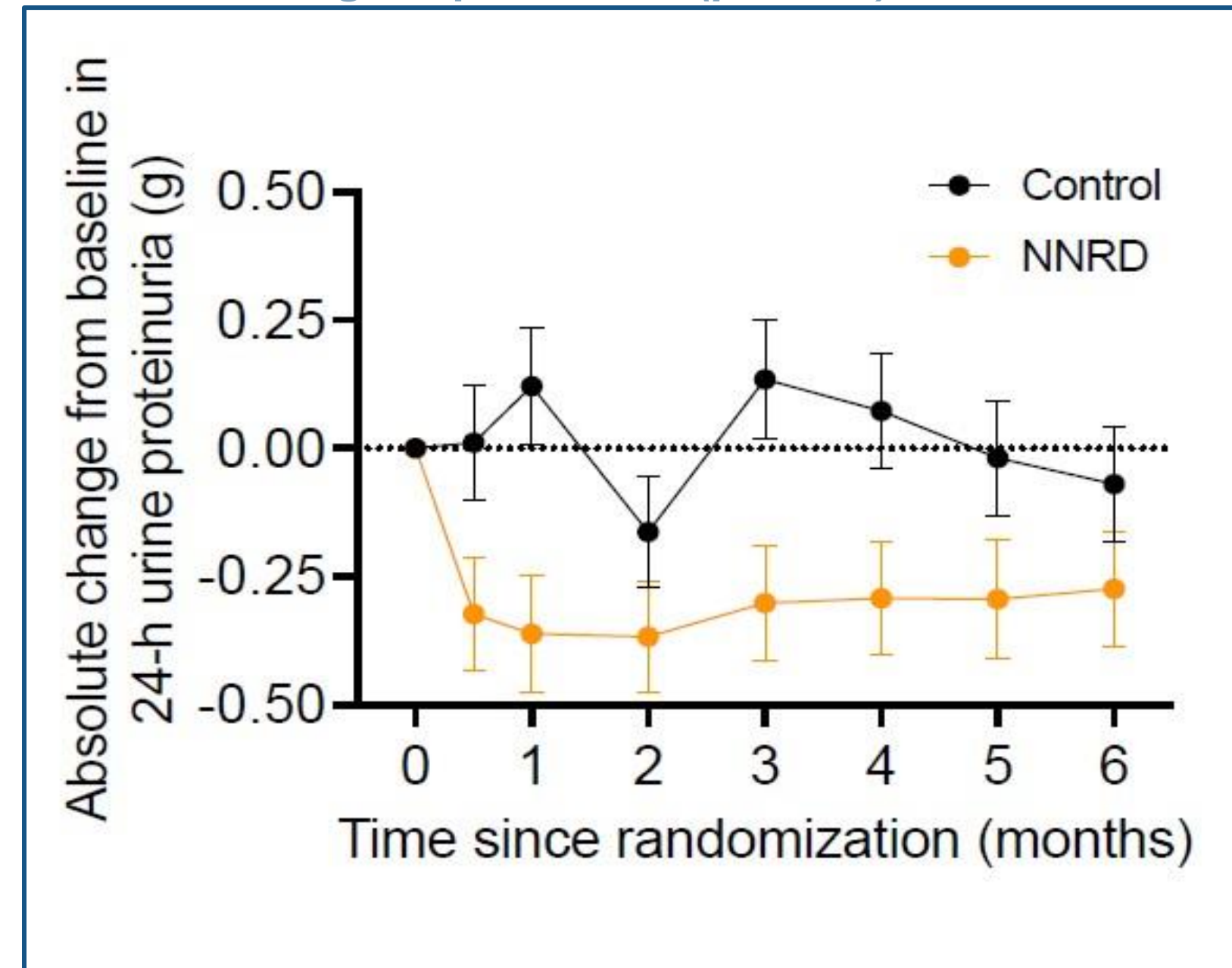


### Results

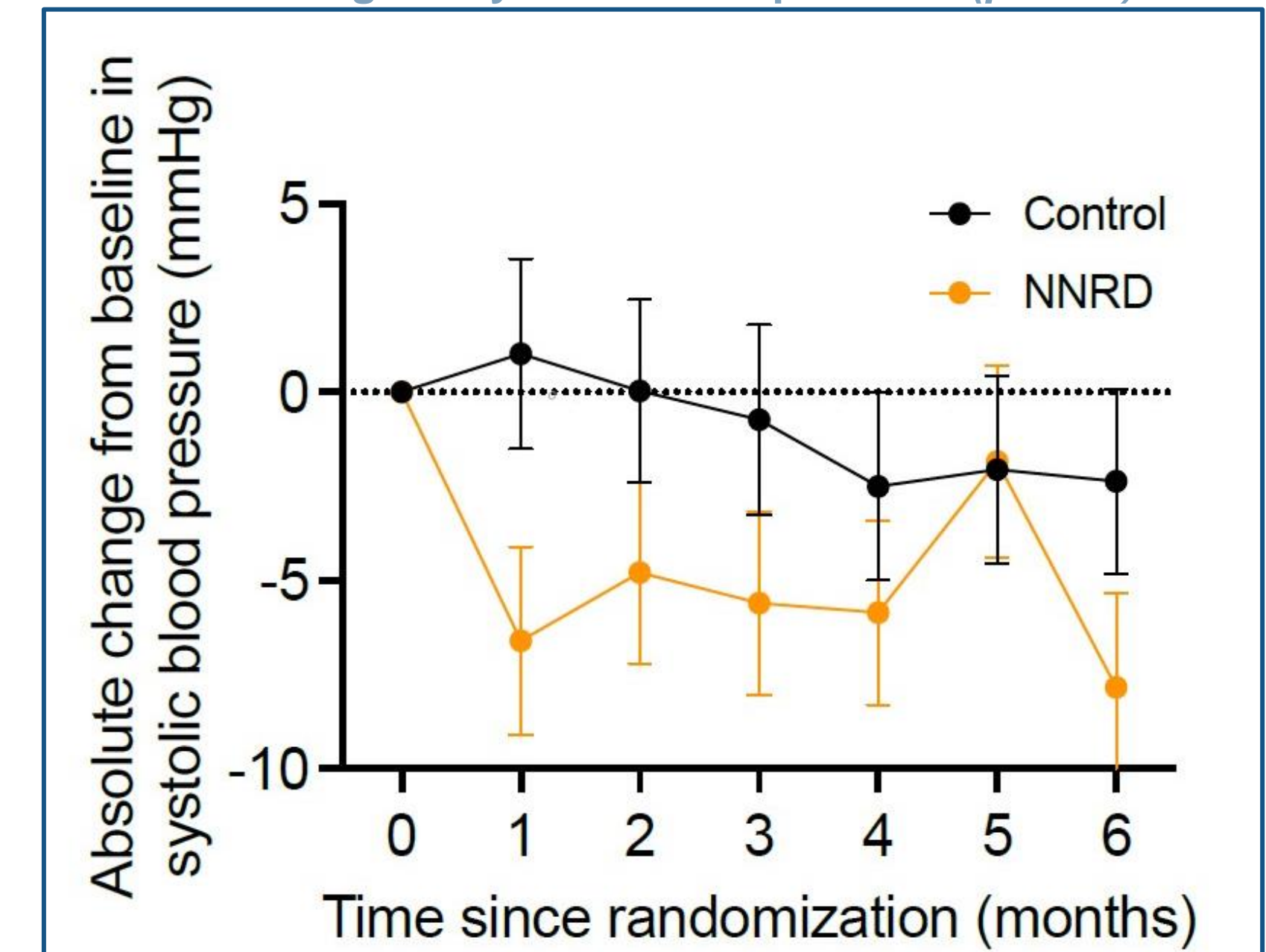
Result 1: Change in 24h urine phosphorus excretion ( $p<0.001$ )



Result 2: Change in proteinuria ( $p<0.001$ )



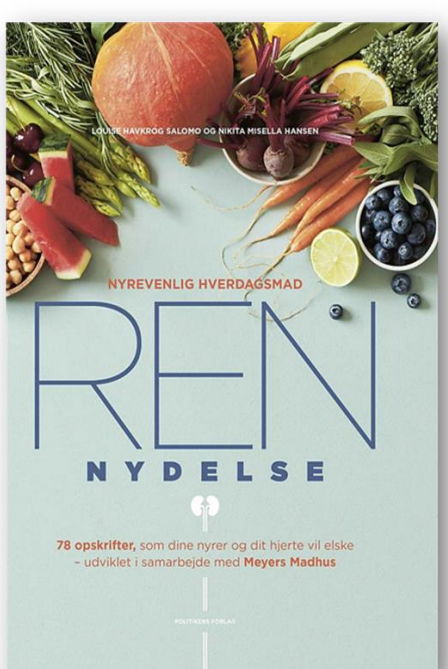
Result 3: Change in systolic blood pressure ( $p=0.04$ )



### Conclusions

6 months with the New Nordic Renal Diet in CKD stage 3-4 is effective and feasible.

- ✓ Reduces urinary phosphorus excretion, proteinuria, urine urea nitrogen and sodium excretion
- ✓ Reduces systolic blood pressure
- ✓ Improves acid-base markers
- ✓ Improves body composition and health-related quality of life



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