Background: A colorectal adenoma makes a precursor to colorectal cancer, the third most common form of cancer worldwide. Individuals with colorectal adenomas have a two to four times increased risk to develop colorectal cancer, and recurrence is common. Previous research shows an association between a high dietary fibre intake and a decreased risk to develop colorectal cancer, but if supplementation with fibre may affect the risk of colorectal adenoma recurrence remains unclear.

Objective: The aim of this systematic review was to analyse and summarize the results of existing scientific foundations if supplementation with wheat fibre may affect the risk of colorectal adenomas recurrence.

Search strategy: A systematic literature search was carried out in the databases PubMed and Scopus. MeSH-terms and free text search words of relevance, such as colorectal neoplasms, colorectal cancer, dietary fiber, adenoma, prevention, cancer prevention and colorectal, were used.

Selection criteria: Randomized controlled trials, human studies written in English, with supplementation with wheat fibre as intervention were included. Adults, 19 years old or older, with one or several previous colorectal adenomas were included. Studies which did not have the outcome measurement colorectal adenoma recurrence were excluded. Individuals with colorectal cancer or other types of cancer, intestinal resection or Familial Adenomatous Polyposis were excluded.

Data collection and analysis: The included studies were reviewed using a template from The Swedish Agency for Health Technology Assessment. Strength of evidence was assessed by a modified version of the GRADE system, designed by University of Gothenburg.

Main results: Three studies were included, although none of them showed a statistic significant association between supplementation with wheat fibre and colorectal adenoma recurrence.

Conclusions: The result of this systematic review showed that supplementation with wheat fibre did not have a statistical significant effect on the risk of colorectal adenoma recurrence (++++).

Keywords: colorectal cancer, recurrence, colorectal adenoma, dietary fibre, wheat fibre