



## Review Article

# Orthorexia Nervosa- As an Eating Disorder

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### Abstract

Clean dieting trends are increasingly spreading worldwide and being very popular. Researchers and clinicians are very interested in a situation (orthorexia nervosa) that individuals restrict their diet according to the quality of the food consumed. There are several similarities and differences between orthorexia nervosa and eating disorders. While patients with eating disorders focus on food quantity, orthorexic individuals focus on pure and quality of food. Orthorexia nervosa is not weight loss fast but enormous phobia about eating only 'clean and pure' foods. Orthorexia nervosa should be classified as a new eating disorder or at least a new neuropsychiatric disorder. Further studies about nutritional, cognitive, and eating habits of ON have to be done in order to determine clearly the hypercorrect position of orthorexia nervosa.

**Keywords:** Eating disorders; Orthorexia nervosa; Diet; Food

### Introduction

Eating disorders such as anorexia nervosa (AN) and bulimia nervosa (BN) are frequently diagnosed and treated by physicians and other eating disorders are called as nonspecific eating disorders. In despite of being a little known, these nonspecific eating disorders might be dangerous and severe by reason of the possibility of leading to AN or BN, or being related with other neuropsychiatric disorders such as anxiety or depression (Michalska et al., 2016). The nonspecific eating disorders such as orthorexia nervosa (ON), sleep-related eating disorder (SRED), and bigorexia are not clarified by the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) [1].

### Orthorexia Nervosa

Orthorexia nervosa is being evaluated as a new variant of eating disorders [2]. Orthorexia nervosa is derived from the Greek words, *orthos* (right, correct, straight) and *orexis* (appetite, desire, hunger). In 1997, American doctor Steven Bratman introduced the term 'orthorexia' in a non-scientific journal to define his own experiences with food and eating. Bratman has described the individuals whose abnormal diets cause to disturbances of daily functioning and malnutrition [3]. ON defines a pathological obsession with a cluster of eating behaviors that involve a fixation to eat accurate or healthy, strictly organic, biologically-pure foods [4]. Healthy eating behaviors can affect health positively. On the other hand, they may also give rise to pathological behaviors such as orthorexia nervosa [5]. It has been demonstrated that orthorexia nervosa is seen as more desirable, less severe, and generally the result of personal preferences for life [6] and ON may affect approximately 7% of general population and be more common among males [1]. The individuals who practice sports such as athletics or bodybuilding are the groups at higher risk for ON [7].

Clean dieting trends are becoming very popular nowadays. Clean eating indicates the eating behaviors related with restrictive eating models, optimum nutrition, and evasion of unhealthy, processed, or impure foods. The Raw food diet, the Low Carb High Fat, the placebo diet, Super Healthy Family are the most significant examples for clean eating diets [8].

Orthorexia nervosa has not been recognized as a disorder by (DSM-5). Scientists and physicians have discussed whether orthorexia might be evaluated



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**Citation:** Avşar O (2017) Orthorexia Nervosa- As an Eating Disorder. EPOA 1: 11-13

**Received:** Sep 22, 2017

**Accepted:** Oct 10, 2017

**Published:** Oct 17, 2017

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as a disorder, an extreme dietary habit, or behavioral addiction [9]. Orthorexia nervosa is not officially defined as a disorder, however, it is similar to eating disorders such as anorexia nervosa and bulimia nervosa. Moreover, it is not still clear whether orthorexia nervosa belongs to the groups of the obsessive-compulsive disorders or the eating disorders [10]. Orthorexia nervosa has some similar properties with several neuropsychiatric disorders, involving Obsessive-Compulsive Disorder (OCD), anorexia nervosa, illness anxiety disorder, obsessive-compulsive personality disorder, psychotic spectrum disorders, and somatic symptom disorder [11]. Concentration on food, rituals associated with eating, strict eating habits, and very close relationship between self-esteem and eating are the most significant similarities between AN and ON [1]. On the other hand, there are also some notable differences between orthorexia nervosa and eating disorders. Specifically, the individuals with AN are fear of weight gain and being obese, therefore, they restrict food intake in order to lose weight. Conversely, the individuals with ON frequently modify their eating habits to be able to improve their health and to feel 'pure and clean' [8]. While individuals with orthorexia nervosa desire to improve and/or control their health via food and diet, the individuals with anorexia nervosa worry about their physical appearance because of the fear of obesity [4]. Orthorexic individuals indicate obsessive-compulsive behaviors, such as measuring food, weighing frequently and carefully, and extreme meal planning [4]. Furthermore, individuals with orthorexia nervosa continually restrict their diets to a limitative foods such as raw vegetables [8].

Orthorexia nervosa is an obsessive-compulsive pattern on a healthy diet that has worry for food content [12]. It has been demonstrated that socioeconomic status, education, the internalization of the ideals of society, and the preference for profession are involved in the development of ON. On the other hand, age, gender, body mass index are not so significant factors for the development of ON [13]. Furthermore, Oberle et al. has indicated that perfectionism and narcissism are the demographic characteristics which associated with all points of ON symptomatology [14].

The individuals with ON obsessively protest foods which

might involve artificial flavours, pesticide residues, unhealthy fats, artificial colours, foods involving too much sugar or salt, preservative agents, and genetically modified components. Furthermore, kitchenware, and the preparation processes of foods are also main components of the obsessive ritual [7].

### Diagnosis of Orthorexia Nervosa

Orthorexia nervosa is diagnosed when the individual devotes all her or his life for healthy foods and lifestyle and excludes job and social activities. Restrictive diets in orthorexia nervosa give rise to deficiencies in nutrition and social problems. The patient must respond confirmingly to at least four out of eleven questions according to Bratman and Knight (Table 1) [15].

### Treatment of Orthorexia Nervosa

Orthorexia nervosa is a multifactorial condition therefore, the team for the treatment of ON should compose of psychotherapists, clinicians, and dieticians. The treatment includes a combination of psychoeducation, drug therapy, and cognitive-behavioral therapy [16]. Selective serotonin reuptake inhibitors such as paroxetine, fluoxetine, and sertraline might be combined with psychotherapy in some cases and the treatment might be beneficial for ON [17]. Moreover, serotonin reuptake inhibitors are also helpful for AN and OCD.

### Conclusion

Orthorexia nervosa is not weight loss fast but enormous phobia about eating only 'clean and pure' foods. According to the individuals with orthorexia nervosa, the quality and the preparation ways of the foods they consume are more significant than social interactions, career plans, and personal values [17]. In fact, a healthy diet affects health positively and does not influence social interactions, career plans, emotional states, and quality of life. On the other hand, awareness of diet, food, and healthy eating has been increased by the use of internet and social media recently [16]. Using internet may have great potential for misinformation and it has been demonstrated that searching online for health information increase anxiety that is called as 'cyberchondria' [16].

Do you spend more than three hours each day to consider about healthy foods?
Do you arrange your foods one day before?
Which one is more significant for you: what you eat or the pleasure because of eating?
Did your life quality decrease by the healthy diet?
Are you more and more restrictive in your diet?
Do you give up the pleasure of eating to be able to maintain a healthy diet?
Does your self-esteem enhance if you eat healthy foods?
Do you feel remorse and bad if you do not follow your diet?
Does your diet prevent your social activities?
Do you experience satisfactory control if you eat in a proper way?
Do you eat for 'reward' or 'need'?

**Table 1:** Questions for the diagnosis of ON.



Orthorexia nervosa should be classified as a new eating disorder or at least a new neuropsychiatric disorder. Orthorexia nervosa has some disturbances for eating habits and mood. Further studies about nutritional, cognitive, and eating habits of ON have to be done in order to determine clearly the hypercorrect position of orthorexia nervosa.

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