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## INTRODUCTION

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Heat processing of food is essential in modern food production as well as in home cooking; it increases safety, digestibility, and palatability of food [1]. The use of high heat cooking is an integrated part of our food culture, and browning of food is a well-recognized phenomenon that has been used since ancient times. During heating of food, sugar moieties react with proteins. This reaction was described 100 years ago by the French chemist Louis Camille Maillard [2] and has later been named the Maillard reaction. Important aroma, flavor, and colored compounds are formed as part of the Maillard reaction, for example the recognizable aromas of bread, roasted coffee, and meat [3]. A wide range of compounds collectively called advanced glycation endproducts (AGEs) are formed mainly in the final stages of the Maillard reaction [4]. The formation of AGEs increases greatly when food is prepared by high heat cooking, such as in frying, roasting, grilling, and baking [5;6]. AGEs are also formed *in vivo*, particularly under conditions with persistent carbonyl stress and hyperglycemia, as seen in patients with diabetes [7-9]. The increased endogenous formation of AGEs has been linked to development of diabetic complications [8;10;11]. As the contribution of dietary AGEs has been estimated to be significantly larger than the amount of endogenously formed AGEs [6], a possible pathophysiological role of dietary AGEs in development of type 2 diabetes (T2D) and cardiovascular disease (CVD) has been suggested.