

# The use of salt in restaurants

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## Abstract

A high intake of salt is detrimental to health as it causes high blood pressure thus increasing the risk of cardiovascular disease (CVD) and renal disease. Such conditions, mostly hypertension, are common in Malta. A framework for a National Salt Initiative was proposed by the European Union (EU) to establish a common vision for a general European approach towards salt reduction. Since the initiative partly targets reformulation actions with industry and catering, a study done in collaboration with the World Action on Salt and Health (WASH) exploring the use and perceptions of salt amongst chefs and caterers was carried out. A validated questionnaire developed by WASH was sent via email to 66 restaurants together with a covering letter. These included first, second and third class restaurants registered with the Malta Hotels and Restaurants Association (MHRA). 31 restaurants responded to the questionnaire to give a response rate of 47%. The main outcome of the study showed that 90% of the participants added salt to dishes to enhance flavour and improve taste. Although 99% of the respondents were aware which foods are low or high in salt, salt in dishes was replaced by soy sauce and stock cubes. 58% of the respondents were ready to consider reducing salt in their dishes as long as taste was not compromised. Due to the poor response rate, the study cannot be generalised to the Maltese population thus repeating the study with the aim of increasing the response rate so that further recommendations for salt reduction can be made within the population as well as for the catering industry.

## Keywords

Salt, restaurants, perception

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## Introduction

A high intake of salt is detrimental to health as it causes high blood pressure thus increasing the risk of cardiovascular disease (CVD) and renal disease.<sup>1</sup> Numerous epidemiological studies have shown that dietary sodium intake has been linked to blood pressure. It has also been documented that a reduction in dietary salt has lowered blood pressure and can therefore delay or prevent the incidence of antihypertensive therapy.<sup>2</sup> In most countries around the world, the actual salt intake is approximately 9 – 12g/day.<sup>3</sup> The current salt intake in Malta is not known however the 1986 Intersalt Study found that Maltese men consumed 11g/day and women consumed 9g/day of salt.<sup>4</sup> The 2002 Health Interview Survey<sup>5</sup> carried out in Malta, showed that 47% of the participants added salt to their meals whilst cooking whereas 23% added salt at table. Malta's lifestyle survey also reported that the most frequented leisure places in people aged 18 to over 65 years were restaurants.<sup>6</sup>

Due to a high salt intake amongst European countries, a framework for a National Salt Initiative was proposed by the European Union (EU) in 2008. This initiative establishes a common vision for a general European approach towards salt reduction. One of the key elements of the framework targets reformulation actions with industry and catering. Between the 2<sup>nd</sup> and 8<sup>th</sup> of February 2009, the first National Salt Awareness Week was held in Malta by the Health Promotion and Disease Prevention Directorate, in which part of the event focused on the catering industry, chefs and others involved in food preparation.

The event was done in collaboration with the World Action on Salt and Health (WASH) in which a questionnaire exploring the use and perceptions of salt amongst chefs and caterers was carried out in order to target reformulation actions in salt within the catering industry. The trend of restaurants becoming a major source of food and nutrition for many individuals highlights the significance of chefs in matters involving food and nutrition in the catering and hospitality industry.<sup>7</sup> Research on salt reduction in

restaurant dishes was not found however a number of leading multinational fast food companies have shown their ability to reformulate foods to reduce salt levels. The latter evidence has been shown by the UK in which an agreement between Government and industry on salt targets has driven down the salt levels of processed foods.<sup>8</sup> It is believed that the information obtained from this questionnaire will shed some light on the use of salt within industry which will help in initiating plans and discussion to start implementing the Salt Initiative in Malta.

## Methods

Part of the role of WASH is to support its members with resources and the latest research on salt, food and health. The questionnaire which was obtained from Ms Clare Farrand, WASH coordinator was one of the resources sent in preparation of the National Salt Awareness Week which focused on *Salt and Eating Out* in the UK. The questionnaire was already validated and used in other countries that are also members of WASH.

This validated WASH questionnaire was sent via email to 66 restaurants together with a covering letter. These included all the first, second and third class restaurants registered with the Malta Hotels and Restaurants Association (MHRA). The questionnaires were all sent over February and March 2009 via the contact email listed in the MHRA register. Those restaurants that did not have an email address listed or who had a default email were called to obtain a valid email address. In some cases, it was asked for the questionnaires to be sent to the kitchen personnel however the exact number is not known as the managing director may have forwarded the questionnaire to the personnel responsible. The questionnaires were set up to be filled in online. The restaurants had the option to send them online or by post in order to achieve a better response rate.

The questionnaire consisted of 16 questions that included both direct and open ended questions. The latter questions aimed at understanding the respondents' perceptions on salt. The questionnaire was divided into four sections targeting dietary salt, the use of salt during cooking, customers and menu dishes.

It was made sure that all information was treated confidential. Moreover the restaurants did not need to identify themselves.

## Results

Out of the 66 questionnaires that were sent, 31 restaurants responded to the questionnaire. The response rate was that of 47%.

## Section 1: Salt in an overview

17 respondents (55%) answered that they knew the maximum amount of salt required a day as recommended by the World Health Organisation (WHO) whereas 14 respondents (45%) did not know. Out of the seventeen respondents (55%), only five (16%) gave the correct recommended amount ie 5 grams of salt or 2.5 grams of sodium. Most respondents (65%) stated that they knew the difference between salt and sodium but only thirteen (42%) stated that salt is made up of sodium and chloride. Moreover most respondents (90%) stated that salt was added to enhance flavour or improve the taste of food. Most respondents stated that on adding salt to food, the potential health benefits of eating salt are considered. Less respondents considered the potential health implications of eating salt. Only one respondent stated that salt was not added to food (Figure 1). The majority of the respondents also stated that not adding salt to food would compromise the taste of their dishes by 15% and over.

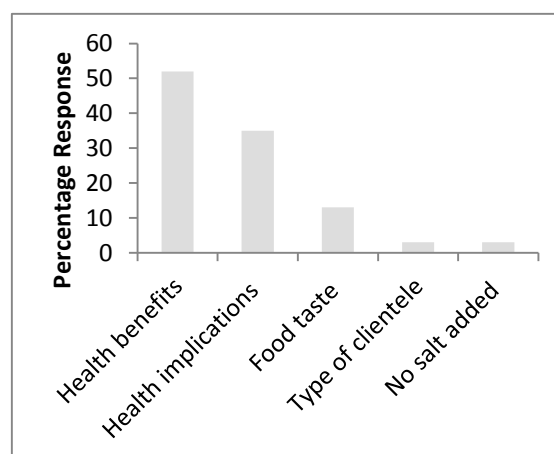


Figure 1. Considerations taken on adding salt

## Section 2: Your opinion regarding salt

Sixteen respondents (52%) stated that although they take note of food labels when purchasing food products but it is not always possible to choose the lower option. Nine respondents (29%) stated that they do not take note of the amount of salt and thus choose whatever product is available.

Most respondents added salt to all dishes in which fifteen of them (48%) added salt to foods such as sauces, stews, meat, fish, poultry, vegetables and soups. Five respondents (16%) stated that salt is not added foods that are already salty. Only one respondent (3%) specified that no salt is ever added to food and another respondent (3%) stated that the salt added is always kept to a minimum. The majority of

the respondents (80%) stated that they think about the health effects of salt but it is not unhealthy because they only add a bit as well as the importance of salt during cooking. Most respondents (52%) also stated that they try to replace salt with other ingredients (Figure 2). Most respondents (99%) agreed that fruits and vegetables are low in salt and 98% stated that bacon, sausages and stock cubes are high in salt (Figure 3).

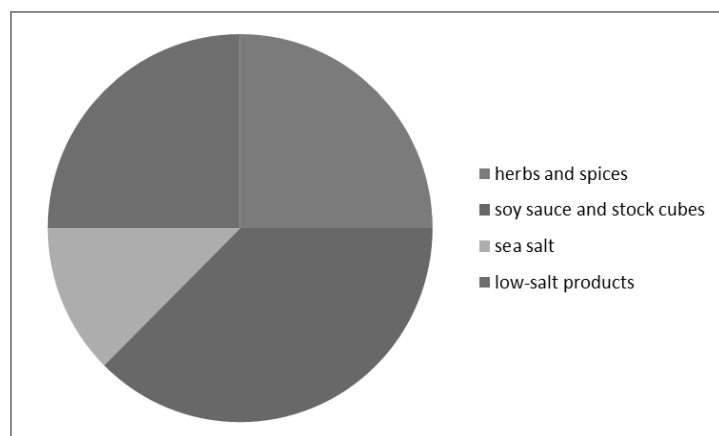


Figure 2. Use of products as salt replacers

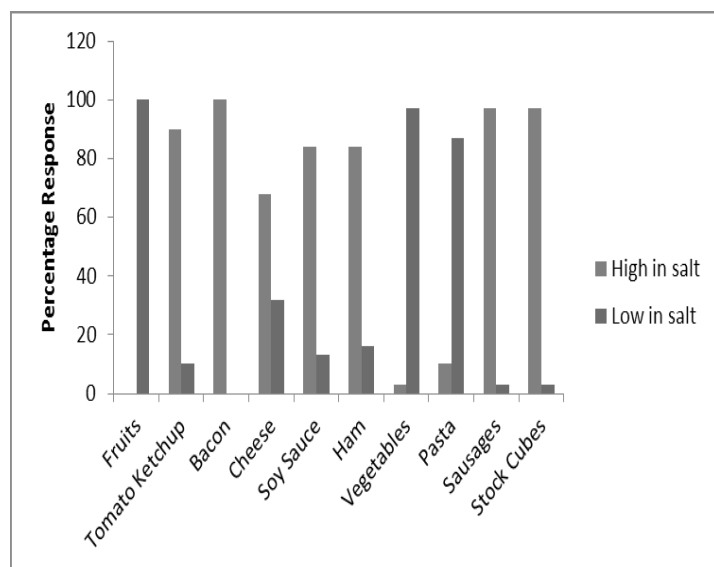


Figure 3. Foods that are high or low in salt as perceived by the participants

### Section 3: Customer preference

Twenty-nine respondents (94%) stated that they had requests to prepare a customer's meal with less salt. However most respondents (64%) never had instances where customers sent their food back to the kitchen because it was too salty. In these cases the dish would be prepared again using less salt.

All respondents (100%) stated that saltshakers are available on the tables in the restaurant and that 65% specified that their guests add salt to their food whilst at table.

### Section 4: Salt use in food preparation

Eighteen respondents (58%) stated they were ready to consider reducing the amount of salt used in their dishes and another 29% said that they would consider salt reduction in their dishes as long as the flavour and taste was not compromised (Table 1).

Fifteen respondents (48%) stated that they would not include a section of lower salt dishes on the menu by depicting the amount of salt in the dish by means of a scale whereas twelve respondents (40%) agree with the idea of including a section of lower salt dishes on their menu and are willing to trying it out.

Contraceptive Method used	Percentage response
Willing to reduce salt	58
Willing to reduce salt if taste is not compromised	29
Willing to reduce salt depending on demand from clients	3
Not willing to reduce salt	10

Table 1: Willingness to reduce salt in dishes

### Discussion

The main limitation of this survey is that due to the poor response rate the results cannot be generalized for all restaurants on the Maltese Islands. It must also be noted that a number of the registered restaurants could not be contacted. This may have been due to an error or a change in the email address.

Another limitation is that although the questionnaires were sent to the registered restaurant, it is not known who actually filled in the questionnaire ie whether a chef, owner or managing director responded to the questions. However from the responses received, it is assumed that an informed individual on the type of food cooked in the restaurant answered the questionnaire.

A high intake of salt increases the risk of cardiovascular disease<sup>9</sup> and hence salt reduction is an important measure towards an individual's well-being. Moreover, the EU has created a framework for Member States in 2008, to focus on reformulating food products by reducing salt by 16% in 4 years. Salt reduction has been less prominent amongst restaurants in the United States (US) than in the food processing industry. This may be due to a lack of consumer

pressure on restaurants or due to the notion that consuming meals at restaurants is tied to special occasions.<sup>10</sup>

This results obtained mainly show that salt is used extensively in local restaurants to enhance flavour and improve taste. The latter is an important function of sodium chloride in food together with its use in preservation and texture modification.<sup>11</sup> In restaurants, salt is considered with flavour, texture and colour.<sup>12</sup> The salty taste of food also has an important role in food choice and acceptance.<sup>13</sup> Although most of the respondents were ready to consider salt reduction in their dishes, they did not want the taste to be compromised. Moreover most respondents stated that salt reduction would compromise over 15% of the taste. However the Consensus Action on Salt and Health (CASH) states that a 10-25% reduction in sodium is undetectable by human senses. This is also supported by an Australian study that showed that a 25% reduction of sodium in white bread was not detected by consumers.<sup>14</sup>

Over 75% of salt is consumed from processed foods thus any meaningful strategy to reduce salt intake must involve the voluntary or involuntary efforts of food manufacturers and restaurants.<sup>15</sup> Successful measures of sodium reduction in the food industry has occurred in the United Kingdom and Finland by means of the gradual reduction of salt in processed foods such that consumers did not notice a change in taste and by replacing salt by an enriched mineral salt called Pansalt – a potassium and magnesium enriched mineral salt. Salt can also be replaced by natural flavours such as herbs, onions and garlic.<sup>16</sup>

It is interesting to note that when asked if salt was replaced by another ingredient, some respondents specified that salt was replaced by soy sauce and stock cubes which are ingredients that are still high in salt and are not considered as salt replacers. The latter may be due to both knowledge of health consequences of salt and the skills required to reduce salt by using various preparation techniques or alternative flavour strategies to be lacking.<sup>10</sup> Therefore educating all levels of restaurant personnel may help raise awareness on such issues<sup>17</sup> to ensure chefs and restaurant owners/managers that a salty taste can be replaced so that consumer acceptance is not negatively affected.<sup>18</sup>

The maintenance of sodium reduced diets are often hard to maintain as they require a change in dietary behaviour such as consumers actively choosing low salt foods.<sup>13</sup> The survey showed that most of the respondents had clients requesting lower salt dishes and were also willing to prepare a dish from scratch with less salt if returned. This shows that restaurateurs are prepared to satisfy the needs of those clients who must restrict their salt intake.<sup>19</sup> Moreover increasing consumer awareness to ask for less salt in their meal at restaurants may also help

reduce the salt intake amongst the population when eating out.

Reformulating existing menu items or expanding menu items that are low in salt can provide consumers with more options to make healthier choices. However this may result in increased costs.<sup>20</sup> Thus unless low salt dishes will generate profits, restaurateurs are unlikely to make changes to their menus.<sup>16</sup>

### Conclusion and recommendations

Although salt intake amongst the Maltese population is not known, the Health Interview Survey in 2008 found that the most common health condition was that of hypertension whereas the most common medications prescribed were antihypertensives.<sup>6</sup> Reducing salt has beneficial effects on the whole cardiovascular system. Thus revising recipes to improve its nutritional composition by a process of reformulation is considered a key option to achieve population nutrient goals.<sup>21</sup>

Due to the low response rate, concrete conclusions and recommendations cannot be made. Thus repeating the study with the aim of increasing the response rate is suggested. This can be done by improving the methodology by attempting a telephone questionnaire or setting up interviews. Moreover the sample can also be extended to study the use of salt in cafeterias, take aways and fast food restaurants. In this way baseline data on the use of salt within the catering industry can start to be established and therefore enable recommendations for salt reduction to be made.

It is to note that most of the food is consumed at home and hence health promotional strategies targeting this area are essential.

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