

3 Prepared Dishes

Prepared dishes are main dishes and side dishes which satisfy the taste buds of everyone at home within the family budget while giving consideration to nutritional balance¹⁾. Prepared dishes can be cooked or processed. The current Composition Tables is listed of cooked dishes in various food groups. Most of the ingredients of the cooked dishes in the food groups excluding processed foods to be cooked are made up mainly of the food ingredients of the food groups, and the cooking method is simple. Cooked dishes belonging to processed foods to be cooked are foods industrially made such as frozen foods, pouched foods, canned foods, and other packaged foods., and listed composition items.

The Subdivision on Resources Expert Committee on Food Components conducted surveys on food needs in the analysis of foods for which demands are expected to grow in the future²⁾. As a result, it was clarified that many types of diverse foods are sought, that the differences in the calculated values of analysis values and listed values differ according to the components, and that with main components, the differences between the two are small. The methods for approximating the calculation of listed values to analytical values were also clarified.

The prepared dishes in this section (processed foods to be cooked and cooked dishes) are mainly side dishes. Examples of main dishes are shrimp pilaf (fried rice) and Chimaki sticky rice wrapped in leaf. Because most prepared dishes differ in ingredients and blending ratio even if the food names are the same, the food ingredients and the range of ingredient blending ratio are also listed.

1) Notes on Foods

Precautions on all prepared dishes listed in this chapter are as follows.

- (1) Of the prepared dishes on the market, 41 prepared dishes considered to be commonly consumed at home and in schools (15 Japanese prepared dishes, one Korean prepared dish, six Chinese prepared dishes, 19 western prepared dishes) are listed. The prepared dishes are listed according to the type and cooking method, and in the Japanese syllabary order.
- (2) The recipes (ingredient names, weight of ingredients, cooking method) of several manufacturers were collected for various prepared dishes²⁾³⁾, the percentage of the weight of each ingredient used was calculated, and the average values, maximum values, and minimum values were listed.
- (3) Ingredients whose average ingredient ratio is less than 0.05 % was not used for calculating the component values, but listed in the marginal notes under Others.
- (4) The component values of ingredients used for calculations are those of the most similar foods in the foods listed in the current Food Composition Tables. In the case of foods to be cooked by heating, the component values of foods after they have been cooked are used where possible. For foods where only raw component values are only listed, the component alteration rate* of similar food categories was multiplied to calculate the component value after cooking. (*Refer to Table 24 of this section.)
- (5) In calculating the component values, first the component values of the whole prepared dish when cooked and dried matter weight were calculated based on the recipe weight for each product. Then

the water content of each product was analyzed, and the calculation results were converted to the component values per 100g of the prepared dish. For products for which the content analysis was not carried out, the average water content (analysis value) of a similar prepared dish was used for the calculation.

- (6) The listed values shown are the average values, maximum values, and minimum values of results calculated for each product.
- (7) The component value of prepared dishes given in this section were calculated values based on recipes. Consequently, when recipes differ, component values also differ. Since the component values of ingredients used also change, the amount may be larger than the maximum value in some cases, and the amount may be smaller than the minimum value in other cases.
- (8) When displaying the nutrient composition when selling prepared dishes, the listed values in this section are not used as is, and there is a need to analyze the product components or design newly based on the product recipe.

2) Example of calculating component values (e.g. : Chop Suey)

What is prepared : ①Chop Suey recipe (Ingredient name, food weight, cooking method)

②Current Food Composition Tables

(STANDARD TABLES OF FOOD COMPOSITION IN JAPAN - 2015 –
(Seventh Revised Edition))

③Water content (analysis value, g/100 g) of “Chop Suey” made by this recipe

STEP1 Check the ingredients used for cooking, their weight, and cooking method.

Table19 Ingredient name and weight of company A's “Chop Suey”

Ingredient name	Weight (g) [A]
Bamboo shoot (Boiled in water)	99
Carrot	60
Chinese cabbage	400
Cloud ear mushroom (Dried)	4
Peeled shrimp	80
Pork	200
Salad oil	12
Corn starch	5
Soya sauce	9.8
Salt	2.2
Salt-fried sauce	56

STEP2 Apply “Ingredient name and weight (Table 19) to “Ingredient name and weight (Table 20)” according to the cooking method.

1 If the same food as per the recipe is not listed in the current Food Composition Tables, similar foods are selected to supplement.

For example, for “salt-fried sauce” (56 g) , apply the combination of “table salt” (5 g) and “Chinese stock” (51 g) based on the salt.

If the same food as per the recipe is listed in the current Food Composition Tables, Table 19 [A] and Table 20 [A'] apply.

2 The food used for the calculation is selected according to the cooking method, and converted using the food yield after cooking.

For foods for which foods which have been cooked such as “boiled” and “fried”, etc. are listed, the component values are used according to the cooking method. In this case, the weight is converted using the food yield after cooking of each food (Table 20 [B] : Current Food Composition Tables Chapter 1 Table 15) .

For example, the food yield after cooking when Chinese cabbage is boiled is 72 %, and it can be calculated that 400 g of raw Chinese cabbage becomes 288 g when boiled.

3 For weights including the disposed part, the weight minus the disposed parts are obtained.

When recipes are written in weights including disposed parts such as skin and core, etc., (for example, if the weight of a carrot before the skin is peeled is indicated), the weight minus the disposed parts is calculated using the disposed rate (Table 20 [C]).

As all the weights and blending ratios indicated in this section do not contain disposed parts, the disposed rate was calculated as 0.

Table 20 Food names and weights used for calculation

Food names	Weight (g) [A']	Foods used for calculation (Item number, food name)	Food yield after cooking (%) [B]	Disposed rate (%) [C]	Weight after conversion (g) [D] ※
Bamboo shoot (Boiled)	99	06151 Bamboo shoot Boiled and canned in water	-	0	99
Carrot	60	06215 Carrot, regular (European type), root without skin, boiled	87	0	52
Chinese cabbage	400	06234 Chinese cabbage, head, boiled	72	0	288
Cloud ear mushroom (Dried)	4	08007 Cloud ear mushroom, boiled	1000	0	40

Peeled shrimp	80	10329 Black Tiger, cultured, raw	-	0	80
Pork	200	11132 Pork, large type breed Inside ham, without subcutaneous fat, roasted	71	0	142
Salad oil	12	14006 Vegetable oil, blend	-	0	12
Corn starch	5	02034 Potato starch	-	0	5
Soya sauce	9.8	17007 Dark soya sauce	-	0	9.8
Salt	2.2	17012 Table salt	-	0	2.2
Salt fried sauce 56 g	5	17012 Table salt	-	0	5
Salt Chinese stock	51	17025 Chinese stock	-	0	51

※ Weight after conversion $[D]=[A'] \times [B] \div 100 \times (100-[C]) \div 100$

(When food yield after cooking is “□”, the weight after conversion $[D]=[A'] \times (100-[C]) \div 100$)

STEP3 Foods for which component values after cooking by heat in the current Food Composition Tables.

Of the food ingredients indicated in Table 19, “Black Tiger”, “farmed”, “raw” were applied to “peeled shrimp”, but in this state, changes in components due to cooking by heat cannot be taken into account. For this reason, components when Black Tiger is boiled are estimated from the component variability rate of boiled shrimp in Table 25 “List by component variability rate categories” in this section. (Table 21 Here, components up to the gray areas are indicated only due to the limited space, but other components are calculated in the same way.)

Table 21 Estimation of component values when Black Tiger is boiled (per 100g of edible parts)

	Protein (g)	Fat (g)	Carbohydrates (g)	Ash content (g)	• • •
10329 Black Tiger, cultured, raw [a]	18.4	0.3	0.3	1.1	• • •
Component variability rate of shrimp “boiled” (%) [b]	100	79	-	110	• • •
Black Tiger “Boiled” estimated values ([a] × [b] ÷ 100)	18.4	0.2	0.3	1.2	• • •

*As component variability rate is “□”, it was calculated as no change in components.

STEP4 Calculate component values of “Chop Suey” in whole from foods used for calculation and weight after conversion.

- ① Using values calculated in STEP2 and STEP3 and values listed in the current Food Composition Tables, the component values of Chop Suey are calculated.

For example, the component values per 99 g of “06151Bamboo shoot, canned in water” are values obtained by multiplying listed values in component tables (component values per 100 g) with 0.99. Each food ingredient was calculated in the same way and totaled for each component (Table 22).

Table 22 “Chop Suey” component values

Foods used for calculation (Item No./Food name)	Weight after conversion (g)	Calculation results				
		Protein (g)	Fat (g)	Carbohy drates (g)	Ash content (g)	...
06151 Bamboo shoot, canned in water	99	2.7	0.2	4.0	0.3	...
06215 Carrot, regular (European type), root without skin, boiled	52	0.4	0.1	4.4	0.4	...
06234 Chinese cabbage, head, boiled	288	2.6	0.3	8.4	1.4	...
08007 Cloud ear mushroom, boiled	40	0.2	0.1	2.1	0.1	...
Black Tiger, boiled estimated values	80	14.7	0.2	0.2	1.0	...
11132 Pork, large type breed inside ham, without subcutaneous fat, roasted	142	42.9	10.8	0.4	2.1	...
14006 Vegetable oil, blend	12	0	12.0	0	0	...
02034 Potato starch	5	0	0	4.1	0	...
17007 Dark soya sauce	9.8	0.8	0	1.0	1.5	...
17012 Table salt	7.2	0	0	0	7.2	...
17025 Chinese stock	51	0.4	0	0	0.1	...
Component values for Chop Suey [X]		64.6	23.6	24.6	14.1	...

- ② The dried matter weight* is calculated from the component values of the calculated Chop Suey in whole (Equation 1).

(*Dried matter weight is the total value of protein, fat, carbohydrates)

【Equation 1】 Dried matter weight of “Chop Suey” in whole

$$= \text{Protein } 64.6 + \text{fat } 23.6 + \text{carbohydrates } 24.6 + \text{ash content } 14.1$$

$$= \mathbf{126.9 \text{ (g)}}$$

STEP5 Calculate component values per 100 g of “Chop Suey”.

- ① The water content of Chop Suey after cooking is analyzed and calculated to calculate the component values.
⇒ Water content per 100 g of Chop Suey after cooking is 87.1 g (Component values)
- ② The dried matter weight per 100 g of “Chop Suey” is calculated from water content (87.1 g) per 100 g of

“Chop Suey”.

【Equation 2】 Dry matter weight per 100 g of “Chop Suey” = 100
87.1 = **12.9 g**

(Figure 1) Composition of 100 g of “Chop Suey”

Water 87.1 g	Dry matter 12.9 g
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- ① The amount of each nutrient composition calculated from recipes (Table 22) is the component values per 126.9 g of dried matter of “Chop Suey”. On the other hand, the dried matter weight was calculated to be 12.9 g from the analysis results of 100 g of “Chop Suey”. By converting the calculation results in Table 22 to values per 12.9 g of dried matter, the component values per 100 g of “Chop Suey” can be calculated. (Given that water content is not contained in the nutrient composition, the component values per 100 g of “Chop Suey” are equivalent to component values per 12.9 g of dried matter of “Chop Suey”). (Table 23)

Table 23 Component values per 100 g of “Chop Suey”

	Protein (g)	Fat (g)	Carbohydrates (g)	Ash content (g)	• • •
Table 22 calculation results total [X] (Component values per 126.9 g of dried matter)	64.6	23.6	24.6	14.1	• • •
Component values per 100 g of “Chop Suey” (per 12.9 g of dried matter) ([X] ÷ 126.9 × 12.9)	6.6	2.4	2.5	1.4	• • •

When the weight after cooking “Chop Suey” according to this recipe is known accurately, the component values per 100 g based on this (excluding water content) can be calculated. Water content is obtained by subtracting the total amount of protein, fat, carbohydrates, and ash content per 100 g from 100 g.

【Equation 3】 Component values per 100 g of “Chop Suey”
= Component values of “Chop Suey” in whole obtained in STEP4 ÷ weight after cooking (g) × 100

3) Component values of prepared dishes

Table 24 shows the listed values (average values, maximum values, and minimum values) determined by calculating component values per 100 g of prepared dish. Due to the difference in amino acid protein,

triacylglycerol equivalent, fatty acid, and monosaccharide equivalent differ according to the calculation method, they were not calculated in this section.