



Nippers' Nutrition

Food for
under 5's

East Sussex
County Council



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Introduction

Nippers' Nutrition was a project which ran during 2007 looking at the nutritional content of meals supplied to under 5's in nurseries. The results of the project indicated that there was a need to highlight the nutritional requirements of this age group and provide some advice on what constitutes healthy eating.

The Daily Requirements for Children Under 5

Pre-school children need small frequent meals and snacks throughout the day. It is the types and variety of foods that are eaten each time that ensure that the nutrient requirements are met and that the diet is nutritionally balanced.

3 Points to Remember

- Pre-school children have a high energy and nutrient requirement relevant to their size.
- They have a small stomach and a relatively under-developed gut which prevents them from consuming large quantities of food at a time and sometimes causes harmless bowel problems.
- They have a variable appetite, related to fluctuations in growth rate and level of physical activity.





Four Main Food Groups

A pre-school diet needs an appropriate intake of foods from the four main food groups:

- Bread, potatoes and cereal;
- Fruit and vegetables;
- Milk and dairy foods; and
- Meat, fish and alternatives.



Bread, other Cereals and Potatoes

- These provide carbohydrate, fibre, B vitamins and some calcium and iron.
- These should be provided at each meal plus snacks because starchy carbohydrates are needed for energy.
- Have a mix of white and whole grain - too much wholemeal bread and pasta can overfill a young gut, resulting in too little of the other food groups being consumed. It may also inhibit the absorption of some minerals in the digestive system.





Fruit and Vegetables

These provide vitamin C, antioxidants, fibre and potassium.

- Fresh, frozen, dried, canned and juiced -they all count.
- Offering a good range of fruit and vegetables will establish good habits for later life.
- Aim for 5 a day. At nursery, 1-2 fruit portions and 2-3 of vegetables. The remaining amount should be given at home.
- Avoid excessive intake of fruit and vegetables as they are very high in fibre and too much may over fill a young gut, resulting in too little of the other food groups being consumed

Any of the following would be a suitable portion for a child under 5 years:

- 25ml of orange or apple juice diluted with water.
Juice only counts as a portion once in a day;
- Small banana;
- Half of apple or pear;
- Peeled satsuma;
- Small bowl of canned fruit in juice;
- Small box of raisins; or
- Tablespoon portion of broccoli, carrots, sweetcorn, peas, green beans or tomatoes.

Note: A suitable portion size for an under 5 would be the amount a child could hold in the palm of their hand. This will increase as the child grows.





Milk and Dairy Foods

- Dairy foods are required for energy, fat, vitamins A and E and calcium.
- Children under 5 should be offered the full fat variety.
- Dairy should be offered 2-3 times a day.

Examples:

- Full cream milk (whole milk). Try buying homogenised as this avoids having cream on the top;
- Cheese;
- Yoghurts;
- Fromage frais;
- Custard; and
- Milky puddings such as rice pudding or semolina.



Meat, Fish and Alternatives

- As well as providing protein, they also provide iron, zinc, magnesium and B12 and should be offered at each main meal.
- Eat a range including meat and oily fish.
- For vegetarians - eat a mixture of alternative protein sources to get a range of nutrients i.e. beans, nuts, eggs, cheese, seeds, tofu, quorn.
- Oily fish provide omega 3 fats in the diet, which are important for brain development in young children. Children are recommended to have only 1 portion a week as oily fish also contains high levels of mercury which can be dangerous in large amounts.
- Examples of oily fish include sardines, mackerel, pilchards, trout and salmon.
Tinned tuna does not count as oily fish.
- Red meat is an excellent source of iron and should be included twice a week in the menu.
- Examples of red meat include beef, lamb and pork.



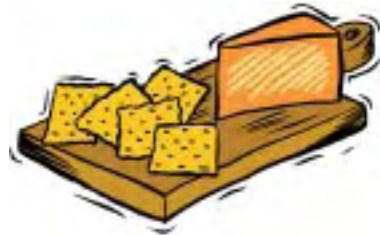


Snacks

Snack foods should compliment meals to ensure there is a good balance from the different food groups, and an optimum intake of all nutrients.

Ideas for healthier snacks could include:

- Toast with butter or margarine;
- Breadsticks/ crackers with dips (e.g. houmous, tzatziki);
- Cheese and crackers;
- Crumpets;
- Muffins;
- Scones; or
- Fruit.





Fats

What do we get from fat?

- Energy
- Fat soluble vitamins
- Essential fatty acids



Why is fat important for the under 5's?

It is needed to provide adequate energy in small portion sizes.

- High fat foods can also be nutritious e.g:
- Full fat milk (whole milk);
- Cheese;
- Yoghurt; and
- Nuts.

Try to include 2/3 times a day.

Children under 5 should **not** have any low fat or diet foods. They should be given the full fat varieties of oil, butter, margarine and dairy foods.

Salt and Sugar

How much salt and sugar can children under 5 have?

- Approximately $\frac{1}{2}$ tsp is recommended as the maximum intake of salt. Children obtain this from eating foods such as bread, milk, cheese etc...so additional salt should **not** be added to food.
- Approximately 8tsp per day is the recommended proportion of energy from sugar.





Where do we find sugar and salt?

The most salty foods are:

- Preserved foods e.g. smoked fish, bacon;
- Pre-prepared foods e.g. ready meals, bread, cereals, packets, tins and jars; and
- Seasonings e.g. stock cubes, added salt.

The most sugary foods are:

- Sweet snacks e.g. biscuits, cakes, sweets;
- Condiments e.g. ketchup, jam; and
- Drinks e.g. fizzy drinks, squash.

Note: Sugar products are perfectly acceptable in moderation in a young diet. Fizzy drinks and sweets are poor nutritional choices, although, surprisingly chocolate and cakes given sparingly can serve a purpose in a young diet as they are good energy providers.

Drinks



Whole milk and water are the best drinks to serve between meals.

Sweetened drinks including well diluted fresh fruit juice should only be consumed with meals to reduce the risk of dental problems.





Daily Portion Guide

Starchy food, bread, cereal and potatoes	Each meal plus snack
*Fruit	1-2/ day
*Vegetables	2-3/ day
Dairy	2-3/ day
Meat, fish and alternatives	At each main meal (lunch/ dinner)
Oily fish	Once a week
Salt (none added to food)	$\frac{1}{2}$ tsp/day
Sugar	8tsp/day

- * For fruit and vegetable portions, aim for 5 a day in total. This guidance assumes that the children will also get fruit and vegetables at home!



An Example Menu for Under 5's in Childcare

	Monday	Tuesday	Wednesday	Thursday	Friday
Mid-morning snack e.g. at 10.00am	Milk Canned peaches in juice Whole milk Yoghurt	Milk Breadsticks Cheese chunks Cherry tomatoes	Milk Vanilla yoghurt with banana	Milk Cheese straws Pineapple chunks	Milk Sliced grape Apple chunks
Lunch e.g. at 12.00-1.00pm Water and diluted fruit juice available	Chunky fish casserole or Fisherman's pie and Chocolate tiffin	Lamb burgers with paprika potato wedges or Shepherd's Pie and Rice Pudding with saffrans & dried apricots	Chicken casserole & baby jacket potatoes or Chicken stir fry with noodles and Peaches & ice cream	Vegetable lasagne and mixed salad or Macaroni cheese with peas & sweetcorn and Apple crumble & custard	Cottage pie & broccoli or Spaghetti Bolognese and Mini pineapple & carrot cake
Mid-afternoon snack e.g. at 3.00pm	Milk Cucumber & carrot sticks Pitta Bread Mint & cucumber dip/houmous	Milk Toasted tea cake with butter Sliced pear	Milk Cracker with butter Cheese chunks Orange	Milk Crumpet with butter Apple	Milk Toasted muffin with butter Raisins
Tea e.g. at 5.00pm Water and diluted fruit juice available	Egg & cress/ cheese & tomato/dairy/lea & ham sandwiches Cherry tomatoes Banana custard	Tuna & sweetcorn pasta Fromage frais Satsuma	Sardines on toast Sliced tomato Jelly with mandarins	Beans on Toast Apricot fool	Baby jacket potatoes with cheese & spring onions Yoghurt & pineapple

Menu Recipes

(All recipes provide 12 portions)

Apple Crumble

Ingredients:

200g	Self raising flour
45g	Porridge oats
110g	Vegetable margarine
85g	Sugar
675g	Sliced cooking apples



Method:

1. Place all dry ingredients into a bowl.
2. Rub the margarine to form a breadcrumb type mixture.
3. Put the apple into a tin and sprinkle the mixture over it.
4. Bake at 200C, 400F, gas mark 6 for 30-45 minutes until golden brown.

Apricot Fool

Ingredients:

660g	Canned apricots in juice
400ml	Whole milk
2 dsp	Custard powder
2 dsp	Sugar



Method:

1. Heat most of the milk to almost boiling.
2. Mix the remaining milk with the custard powder and sugar in a bowl.
3. Combine the heated milk with the custard mix and return to the pan. Simmer gently until thickened - turn into a bowl to cool.
4. Place the canned apricots in juice in a food processor bowl and add 300g of cold custard.
5. Blitz together until smooth.



Cheddar & Spring Onion Jackets with Carrot

Ingredients:

1080g	Baby jacket potatoes
240g	Cheddar cheese
180g	Spring onions
100g	Mayonnaise
480g	Raw carrot



Method:

1. Cook jacket potatoes as desired.
2. Once cooked, cut the jacket potatoes in half.
3. Grate the cheese and slice the spring onions.
4. Mix the cheese and spring onions with the mayonnaise.
5. Add to the centre of the potatoes.
6. Slice the carrots and add as a garnish.



Cheese Straws

Ingredients:

40g	Plain flour
40g	Wholewheat flour
40g	Butter
50g	Cheddar cheese
1	Medium egg (beaten)
1 tsp	Paprika powder



Method:

1. Pre-heat the oven to 180C, 350F, gas mark 4.
2. Mix together the flours and paprika. Rub in the butter until the mixture looks like breadcrumbs.
3. Stir in the cheese.
4. Mix $\frac{1}{2}$ the beaten egg into the mixture to make a soft dough.
5. Turn the mixture onto a board and knead lightly. Roll into an oblong and cut into finger shapes.
6. Coat the fingers in the remaining egg.
7. Bake at 180C, 350F, gas mark 4 for 15 minutes until golden brown.



Chicken Casserole

Ingredients:

500g	Diced chicken
100g	Diced carrots
100g	Diced onions
1 tbsp	Vegetable oil
750ml	Chicken stock
50g	Tomato puree
40g	Plain flour
125g	Mushrooms
200g	Frozen peas



Method:

1. Gently fry the onions and carrots in oil.
2. Add the flour and cook for 2 minutes.
3. Mix in the tomato puree and stock.
4. Bring to the boil and cook for 15 minutes.
5. Add the mushrooms and peas and bring back to the boil.
6. Place the chicken in a deep tin, cover with the sauce and cook for 30 minutes at 180C, 350F, gas mark 4.
7. Serve with baby jacket potatoes or other foods from bread, cereals and potatoes food group.



Chicken Stir Fry

Ingredients:

150g	Broccoli florets
150g	Baby sweetcorn
450g	Diced chicken
1 tsp	Fresh ginger
60g	Spring onions
150g	Carrots peeled
1 tbsp	Vegetable oil
300ml	Chicken stock
1 tbsp	Demerara sugar
1 tbsp	Cornflour
2 tsp	Soy sauce



Method:

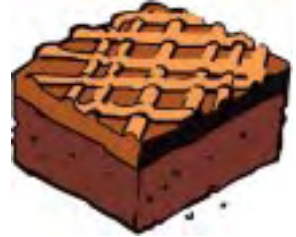
1. Bring a wok or pan of water to the boil.
2. Cut the broccoli florets and blanch the broccoli and sweetcorn in the water for 2 minutes. Drain well.
3. Peel the ginger and cut into very thin slices.
4. Trim and diagonally slice the spring onions. Cut the carrots into matchsticks.
5. Wipe the wok with kitchen paper and heat the oil until almost smoking. Add the chicken and stir fry for 7-8 minutes until golden. Transfer to a plate and keep warm.
6. Stir fry the ginger, spring onions and carrots for 2 minutes. Stir in the broccoli and sweetcorn and cook for 1 minute.
7. Mix together the sugar, soy sauce and corn flour until smooth and well blended. Add to the pan along with the chicken and chicken stock. Bring to the boil and simmer for a further 2 minutes or until heated through.
8. Serve with noodles.



Chocolate Tiffin

Ingredients:

100g	Crushed digestive biscuits
25g	Sultanas
25g	Chopped glace cherries
1 tbsp	Golden syrup
50g	Vegetable margarine
50g	Cocoa powder
170g	Plain chocolate



Method:

1. Melt the syrup, margarine and cocoa powder on a gentle heat.
2. Add a mixture of crushed biscuits, sultanas and chopped cherries. Mix well.
3. Press onto a baking tray and leave to set.
4. Melt the chocolate and coat evenly on top of the mixture.



Chunky Fish Casserole

Ingredients:

530g	Cod fillet
300ml	Chicken/vegetable/fish stock
300g	Peeled prawns
225g	Sliced mushrooms
150g	Sliced green beans
150g	Sliced onions
175g	Pasta shells
75g	Sliced green peppers
75g	Sliced red peppers
60g	Plain flour
50ml	Vegetable oil
1 tsp	Sage
1 tsp	Garlic
1 tsp	Parsley



Method:

1. Cut the cod fillets into finger sized strips.
2. Cook the pasta shells in boiling water for 3/4 of the cooking time recommended on the packet.
3. Drain in a colander and rinse under cold water.
4. Heat $\frac{1}{2}$ of the oil in a large saucepan and add the onions, peppers and mushrooms. Stir over a fairly high heat for a few minutes, then add the garlic and stir again.
5. Using a slotted spoon, remove the vegetables from the pan and put into a deep ovenproof dish.
6. Toss the prepared cod in flour.
7. Heat the remaining oil in the pan and gently fry the fish for a few minutes, taking care that the fish does not break up.
8. Add the stock, sage and seasoning, then bring to the boil and add the vegetable mix.
9. Add the green beans, prawns and pasta shells and stir gently to mix well.
10. Return to the ovenproof dish, cover and bake in the oven at 180C, 350F, gas mark 4 for 20 minutes.
11. Serve garnished with chopped parsley.



Cottage Pie

Ingredients:

700g	Minced beef
300ml	Beef stock
750g	Peeled potatoes
65g	Diced carrot
65g	Diced onion
30g	Margarine
30g	Diced celery
30g	Plain flour
2 tbsp	Tomato puree



Method:

1. Blend the flour with a little water to make a paste.
2. Place the meat, onions, carrots, celery, tomato puree, stock and flour mix in a saucepan and bring to the boil.
3. Simmer for 1 hour.
4. Boil the potatoes until soft and mash with margarine.
5. Place the mince mixture in an ovenproof dish and top with mashed potato.
6. Place under a hot grill to brown the potato.



Fisherman's Pie

Ingredients:

280g	White fish fillets e.g. cod, coley, whiting
200g	Smoked mackerel
35g	Vegetable margarine
720g	Peeled potatoes
600ml	Semi skimmed milk
80ml	Semi skimmed milk
80ml	Semi skimmed milk
90g	Grated cheddar cheese



Method:

1. Cut up the fish fillets (not too small) and place in a dish. Cover with 80ml milk and foil.
2. Bake for about 20 minutes.
3. Boil the potatoes and mash with 80ml milk.
4. Remove the fish from the oven, drain off and keep the liquid.
5. Melt the margarine, add the flour and cook for 2-3 minutes. Gradually add the liquid from the cooked fish and remaining 600ml milk.
6. Place the fish in a serving dish and cover with the sauce.
7. Spread the mashed potato over the fish mixture and sprinkle with the grated cheese.
8. Cook in the oven at 180C, 350F, gas mark 4 for 30 minutes until browned.



Lamb Burgers

Ingredients:

560g	Minced lamb
80g	Diced onions
120g	White breadcrumbs
1	Egg



Method:

1. Mix all the ingredients together.
2. Form into burgers and chill for 30 minutes.
3. Grill until cooked.

Macaroni Cheese

Ingredients:

335g	Macaroni
75g	Plain flour
75g	Margarine
335g	Cheddar cheese
1 tsp	English mustard
1350ml	Semi skimmed.



Method:

1. Grate the cheese.
2. Cook the macaroni in boiling water for 10-12 minutes (or see cooking instructions on pack) and drain.
3. Melt the margarine and add the flour.
4. Slowly add the milk to the mixture to make a smooth sauce.
5. Bring to the boil until the sauce thickens.
6. Add the mustard powder and grated cheese to the sauce.
7. Add the sauce to the macaroni.



Mini Pineapple & Carrot Cakes

Ingredients:

50g	Plain flour
75g	Self raising flour
$\frac{1}{2}$ tsp	Bicarbonate of soda
55g	Caster sugar
$\frac{1}{2}$ tsp	Ground cinnamon
225g	Drained can of crushed pineapple
160g	Finely grated carrot
80ml	Vegetable oil
1	Egg (beaten lightly)
125g	Softened cream cheese
1 tbsp	Icing sugar
1 tsp	Lemon juice
2 tsp	Whole milk



Method:

1. Preheat oven to 180C, 350F, gas mark 4.
2. Grease two 12 hole (1 tablespoon/20ml) mini muffin pans.
3. Sift flours, soda, sugar and cinnamon into medium bowl.
Add pineapple and carrot, stir in combined oil and egg.
4. Divide mixture between mini muffin pans.
5. Bake uncovered in oven for about 15 minutes or until firm to the touch and golden brown.
6. Stand muffins in pans for 5 minutes and then turn onto a wire rack to cool.
7. To make the cream cheese topping: combine the cream cheese, icing sugar, lemon juice and milk in a small bowl.
8. Spread cooled muffins with topping.



Mint & Cucumber Dip

Ingredients:

150ml	Natural yoghurt
60g	Mayonnaise
2 dsp	Lime juice
110g	Diced cucumber
2 dsp	Chopped mint
1 tsp	Crushed garlic



Method:

1. Place all the ingredients in the bowl of a food processor and blitz until smooth.
2. Refrigerate until served.



Paprika Potato Wedges

Ingredients:

720g	Large baking potatoes
60ml	Olive oil
1 dsp	Paprika
1 tsp	Dried oregano
1 dsp	Crushed garlic



Method:

1. Preheat the oven to 220C, 425F, gas mark 7.
2. Cut the potato into wedges and place in a large bowl with the oil, garlic, paprika and oregano. Mix until well coated.
3. Tip onto a hot baking tray and cook for 35-40 minutes until soft and brown.



Shepherd's Pie

Ingredients:

750g	Peeled potatoes
700g	Minced lamb
300ml	Vegetable/lamb stock
65g	Diced carrots
65g	Diced onions
30g	Plain flour
30g	Diced celery
30g	Tomato puree
15ml	Vegetable oil



Method:

1. Use a little water to make a thin paste with the flour.
2. Place the lamb, onions, carrots, celery, tomato puree and stock in a pan and bring to the boil.
3. Stir in the flour paste and simmer for about 40 minutes.
4. Meanwhile, boil the potatoes until cooked.
5. Mash the potatoes with margarine.
6. Place the cooked lamb and vegetables into a pie dish and top with the mashed potatoes (piped if wished).
7. Bake in a preheated oven 200C, 400F, gas mark 6 for 15-20 minutes.



Spaghetti Bolognese

Ingredients:

450g	Spaghetti
40ml	Olive oil
700g	Minced beef
100g	Diced onions
100g	Diced carrots
50g	Celery
1 tsp	Crushed garlic
1 tsp	Mixed dried herbs
30g	Tomato puree
300ml	Beef stock



Method:

1. Heat the oil in a saucepan, add the minced beef and cook for 5 minutes until lightly browned.
2. Add the onions, carrot, celery and crushed garlic.
3. Stir and cook for 2 minutes.
4. Add the tomato puree and stock.
5. Bring to the boil, then simmer uncovered for 60 minutes, stirring occasionally.
6. Cook the spaghetti in a large saucepan of fast boiling water until soft but firm.
7. Drain well and mix with the sauce in a warmed dish.



Tuna & Sweetcorn Pasta

Ingredients:

480g	Canned tuna in spring water
240g	Canned sweetcorn
180g	Mayonnaise
720g	Pasta shells

Method:

1. Cook pasta shells as directed on the packet. Drain and allow to cool.
2. Meanwhile drain the tuna and the sweetcorn.
3. Combine the tuna, sweetcorn and mayonnaise and mix well.
4. Add the tuna mixture to the cooled pasta and mix well.
5. Refrigerate until used.



Cook's Information

1 teaspoon (tsp) = 5g
1 dessert spoon (dsp) = 10g
1 tablespoon (tbsp) = 15g



Vegetable Lasagne

Ingredients:

180g	Diced onions
90g	Diced mixed peppers
180g	Diced carrots
90g	Mushrooms
100g	Red lentils
1 tsp	Garlic
1 tsp	Mixed dried peppers
1 tsp	Mixed dried herbs
1 tsp	Black pepper
400g	Tinned chopped tomato
2 dsp	Tomato puree
225ml	Water
200g	Lasagne sheets
90g	Plain flour
95ml	Water
Pinch	Mustard powder
90g	Dried skimmed milk powder
910ml	Water
90g	Cheddar cheese



Method:

1. Place the lentils in a saucepan and cover with water. Bring to the boil and simmer for 15-20 minutes.
2. Place the diced onion, peppers, carrots and crushed garlic in a saucepan with a little water and cook until soft.
3. Add the lentils, mushrooms, herbs, tomato puree, tomatoes, pepper and water.
4. Bring to the boil and simmer for 30-45 minutes.
5. Make a white sauce: blend the flour with a little water, make up the dried milk and pour the flour mix into the milk mix, bring to the boil stirring all the time, and then add mustard powder and grated cheese.
6. In a large tray, layer the lentil sauce, lasagne sheets and cheese sauce, ending with a layer of sauce.
7. Bake at 180C, 350F, gas mark 4 for 45 minutes to 1 hour.



**For Nippers' Nutrition information contact
Wendy Scott or Debbie LeShirley at:**

East Sussex Trading Standards, St Marys House,
52 St Leonards Road, Eastbourne, BN21 3UU

wendy.scott@eastsussex.gov.uk
deborah.leshirley@eastsussex.gov.uk

Telephone: 01323 418233/418223
Mobile: 07919 227581/07876 036852



Compiled by East Sussex Trading Standards (2008)
from training materials produced and published by Croydon Environmental Health
("Cooking up a treat in Croydon" nurseries project); and
The Caroline Walker Trust 2006 (Eating Well for Under 5's in Childcare, second edition)
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Edited by Sarah Almond, Consultant Paediatric Dietitian
(www.childrensnutrition.co.uk)