



# Food or Drug Challenge

## A circular collage of various healthy snacks. In the top left, there's a bowl of fresh strawberries. To their right are two sliced kiwis showing their green flesh and black seeds. Below the strawberries are several cooked shrimp. In the center is a glass of white milk. To the right of the milk is a bowl of almonds. At the bottom left is a bar of dark chocolate with some nuts on it. At the bottom right are some walnuts. The entire collage is set against a white background.

It is performed in cases where skin or blood tests:

- ### + On the day of the challenge

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- Before the start of the food or drug challenge, the doctor will make sure that you or your child is well and does not have a runny nose, rashes, swelling in any part of the body and abnormal breathing sounds in the lungs.
- **A parent or legal guardian will need to be present to give informed consent** for all patients below 21 years old before the procedure can start.
- You or your child will be given a small amount of food or drug first, with increasing doses administered over a period of time.
- Once the full dose is given, you or your child will need to remain at the hospital for another 1 to 2 hours to ensure that there are no delayed reactions after the challenge.



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## WHAT SHOULD I BRING FOR THE CHALLENGE?

### + Drug challenge

The medication will be prescribed by our healthcare personnel on the day of the challenge.



### + Food challenge

Please bring along the appropriate amount of food item for the challenge as advised by your physician or as indicated in the table below.

You may wish to bring along other food to consume with the challenged food (it should not contain any allergens that you or your child is allergic to).

Physician to tick the boxes to indicate what items patients should bring:

| Food Type  | What To Bring                                                                                                         | Food Type             | What To Bring                                                                                                                    |
|------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Cow's Milk | <input type="radio"/> 2 baked milk muffins<br><input type="radio"/> 300ml fresh or formula cow's milk                 | Eggs                  | <input type="radio"/> 2 baked egg muffins<br><input type="radio"/> 2 hard-boiled eggs<br><input type="radio"/> 1 soft-boiled egg |
| Peanuts    | <input type="radio"/> 1 bottle of smooth peanut butter<br><input type="radio"/> 100g of peanuts (individually packed) | Soy                   | <input type="radio"/> 300mls soy milk                                                                                            |
| Nuts       | <input type="radio"/> 100g of nut indicated by physician (individually packed)                                        | Meat / Fish / Seafood | <input type="radio"/> 1 palm size portion of cooked protein<br><input type="radio"/> 20 pieces cooked prawns or clams            |
| Wheat      | <input type="radio"/> Wheat biscuits or 250g cooked wheat noodles                                                     | Others                | <input type="radio"/> 250g of food that caused the allergic reaction                                                             |

## YOU OR YOUR CHILD WILL BE HAVING A CHALLENGE ON

### Food / Drug

Date: \_\_\_\_\_

Time: \_\_\_\_\_

\*Duration will be advised by your doctor.

Location:

**Paediatric Day Therapy**, NUH Main Building, Level 4

PLEASE PROCEED TO KHOO TECK PUAT - NATIONAL UNIVERSITY CHILDREN'S MEDICAL INSTITUTE (NUHKIDS), (ZONE E), LEVEL 4 FOR REGISTRATION.

For enquiries relating to your child's allergy, please contact:

**Paediatric Allergy Enquiry Line:** (65) 9728 9285

**Email:** allergy\_kids@nuhs.edu.sg

For rescheduling of appointment, please contact:

**Paediatric Day Therapy:** (65) 6772 7814

**Email:** paed\_s\_daytherapy@nuhs.edu.sg

### Food or drug:

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The estimated cost, **excluding consultation, other investigations and medications, ranges from \$350 to \$1,000.** Please note that these outpatient fees are not claimable by Medisave.

### Special instructions:

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# RECIPES

If you or your child are allergic to any of the items in the ingredient list, kindly discuss with your physician.

## BAKED MILK MUFFIN RECIPE

One muffin = 40ml of baked milk

### Ingredients:

150g self-raising flour  
(or flour substitute)  
80g sugar  
2 tsp baking powder  
1/4 tsp salt  
200ml of cow's milk  
30ml canola oil  
1/4 mashed banana

By Paediatrics Allergy, Immunology  
& Rheumatology team

### Directions:

- Preheat oven to 180°C.
- Line the muffin tin with 5 muffin liners.
- Sift flour and baking powder into a bowl and add the sugar and salt, mix well and set aside.
- Mix together the wet ingredients (cow's milk, canola oil and mashed banana) and mix it well.
- Add wet ingredients to the dry ingredients. Stir until combined.
- Divide the batter into the 5 prepared muffin liners. Depending on the size of your muffin tin, you may need to fill the muffin liners all the way to the top.
- Bake for 30 minutes, or until golden brown and firm to touch.

## BAKED EGG MUFFIN RECIPE

### Ingredients:

1 cup all-purpose flour  
(or flour substitute)  
1/4 tsp salt  
2 tbsp cow's milk (or soy  
milk, rice milk, almond  
milk)  
1 tsp baking powder  
1/4 tsp cinnamon  
2 eggs  
1/2 cup sugar  
1/4 cup canola oil  
1/2 tsp vanilla  
1 cup mashed ripe banana  
or applesauce

By Jaffe Food Allergy Institute

### Directions:

- Preheat oven to 175-180°C.
- Line a muffin pan with 6 muffin liners.
- Mix together the liquid ingredients: milk or milk substitute, canola oil, vanilla extract, mashed ripe banana or applesauce and eggs. Set aside.
- In a separate mixing bowl, mix together the dry ingredients : flour or flour substitute, sugar, salt, cinnamon, baking powder.
- Add the liquids ingredients to the dry ingredients. Stir until combined. Some small lumps may remain.
- Divide the batter into the six prepared muffin liners. Depending on the size of your muffin tin, you may need to fill the muffin liners all the way to the top. If you make more than 6 muffins, please note how many muffins you made and bring at least two muffins with you on the day of the challenge.
- Bake for 30 to 35 minutes or until golden brown and firm to the touch.

## About the National University Centre for Women and Children

The National University Centre for Women and Children (NUWoC) empowers women, children, and families to lead healthier lives. It brings together the [Department of Obstetrics & Gynaecology \(O&G\)](#) and [Khoo Teck Puat – National University Children's Medical Institute \(KTP-NUCMI\)](#) at National University Hospital, working alongside [National University Polyclinics \(NUP\)](#) to strengthen continuity of care across the community.

Supported by the National University Health System (NUHS), NUWoC delivers comprehensive medical and surgical services across the life course – from pre-conception through maternal, child, adolescent, and women's health.

Through a generous gift from the Estate of Khoo Teck Puat, KTP-NUCMI has established an integrated outpatient facility offering medical, diagnostic, and rehabilitation services for children. NUWoC is Singapore's only public specialist centre providing paediatric kidney and liver transplant programmes.

For more information about us, visit [www.nuh.com.sg/NUWoC](http://www.nuh.com.sg/NUWoC)

### Children's Emergency (24-hr)

Location NUH Main Building, Zone F, Level 1

### KTP-NUCMI

Location NUH Main Building, Zone E, Level 2  
(Accessible via Kent Ridge Wing, Zone C, Level 2, Lift Lobby C)  
Operating Hours 8.30am – 5.30pm (Mon to Fri), 8.30am – 12.30pm (Sat)  
General Enquiry +65 6772 5736  
Appointment Line +65 6908 2222  
Email [ktpnucmi\\_appt@nuhs.edu.sg](mailto:ktpnucmi_appt@nuhs.edu.sg)

### 9a Viva-University Children's Cancer Centre

Location NUH Medical Centre, Zone B, Level 9  
Operating Hours 8am – 5.30pm (Mon to Fri)  
Appointment Line +65 6772 5030  
Email [cbccappt@nuhs.edu.sg](mailto:cbccappt@nuhs.edu.sg)

### NUH Children's Urgent Care Clinic @ Bukit Panjang

Location Junction 10, #01-22  
Operating Hours 9am – 11pm daily (including public holidays)  
General Enquiry +65 6219 1538  
Email [childreucc@nuhs.edu.sg](mailto:childreucc@nuhs.edu.sg)

### NUH Child Development Unit @ JMC

Location Jurong Medical Centre, Level 2  
Operating Hours 8.30am – 5.30pm (Mon to Fri)  
Appointment Line +65 6665 2530 / 2531  
Email [cdu@nuhs.edu.sg](mailto:cdu@nuhs.edu.sg)

### NUH Child Development Unit @ Keat Hong

Location Keat Hong Community Club, #03-01  
Operating Hours 8.30am – 5.30pm (Mon to Fri)  
Appointment Line +65 6769 4537/4637  
Email [cdu@nuhs.edu.sg](mailto:cdu@nuhs.edu.sg)

### Clinic A22 NUWoC Children's Clinic @ NTFGH

Location Ng Teng Fong General Hospital  
Tower A – NTFGH Clinics, Level 2  
Operating Hours 8.30am – 5.30pm (Mon to Fri)  
Appointment Line +65 6908 2222  
Email [appointment@nuhs.edu.sg](mailto:appointment@nuhs.edu.sg)

## Our Patient Care Institutions

National University Hospital  
Ng Teng Fong General Hospital  
Alexandra Hospital  
Tengah General and Community Hospital (upcoming)  
Jurong Community Hospital  
National University Polyclinics  
Jurong Medical Centre  
National University Cancer Institute, Singapore  
National University Heart Centre, Singapore  
National University Centre for Oral Health, Singapore  
NUHS Diagnostics  
NUHS Pharmacy



Scan the QR code for more information on our patient care institutions.

OneNUHS Hotline: (65) 6908 2222  
OneNUHS General Enquiries: [contactus@nuhs.edu.sg](mailto:contactus@nuhs.edu.sg)  
OneNUHS Appointments: [appointment@nuhs.edu.sg](mailto:appointment@nuhs.edu.sg)  
**[www.nuhs.edu.sg](http://www.nuhs.edu.sg)**

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