

# Measles Scare 2011

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## \*\*\* Measles outbreak in the UK deadlier this year \*\*\* Measles outbreak prompts plea to vaccinate children \*\*\* European measles outbreak threat to children \*\*\*

Scream the headlines. Unvaccinated children are being excluded from Swiss schools; private clinics are running out of single measles jabs.....What are they panicking about? Heart attacks, strokes, paralysis? No, they are talking about measles - a regular childhood illness that most children sail through.

Yes, there are about 170 000 measles deaths per years world wide (2008 figures), but, as the World Health Organisation (WHO) states:

“The overwhelming majority (more than 95%) of measles deaths occur in countries with low per capita incomes and weak health infrastructures...Most measles deaths are caused by complications associated with the diseases” and

“Severe measles is more likely among poorly nourished young children, especially those with insufficient vitamin A, or whose immune systems have been weakened by HIV/AIDS or other diseases.... As high as 10% of measles cases result in death among populations with high levels of malnutrition and lack of adequate health care”<sup>1</sup>

### Are children in Europe and the United States suffering from malnutrition? Does your child have HIV/AIDS?

If not, why all the fuss?

In the UK, measles used to occur in epidemics about every two years starting in the autumn with the peak being in April and then waning for another two years.<sup>2</sup> In the nineteenth century when social conditions – malnutrition, poor housing, drinking water contaminated with sewage – were similar to those in poorer countries today, it used to be a feared killer here also. But all that changed long ago. In England & Wales the death rate declined from over 1100 per million cases in the mid nineteenth century to a level of virtually zero by the mid 1960s.

### Was this due to vaccination? No

99% of the reduction in deaths due to measles in England & Wales occurred *before* the introduction of the measles vaccine in 1968 and has continued to fall since then. Fig<sup>3</sup>.

Dr David Miller, Deputy Director of the Epidemiological Research Laboratory in Colindale, Middlesex, stated in 1964

“In this country at least, measles is now usually regarded as a minor childhood illness through which we all must pass rather than as a public health problem.”<sup>4</sup>

In fact measles and other childhood infections were so much regarded as part of normal childhood development in the 1960s that mothers sent their children off to measles, mumps, chicken pox and rubella 'parties' so that they would *get* them at the best time - in childhood. They are now described as so likely to cause death or disability that the only sensible choice is to vaccinate.

The incidence of measles *cases* also declined. Great credit was given to the introduction of measles vaccine in 1968 for the lowering of measles notifications in the UK, however, the uptake was only 33% in that year. The level that did not get above 55% until 1980<sup>5</sup> when incidence was already well down.

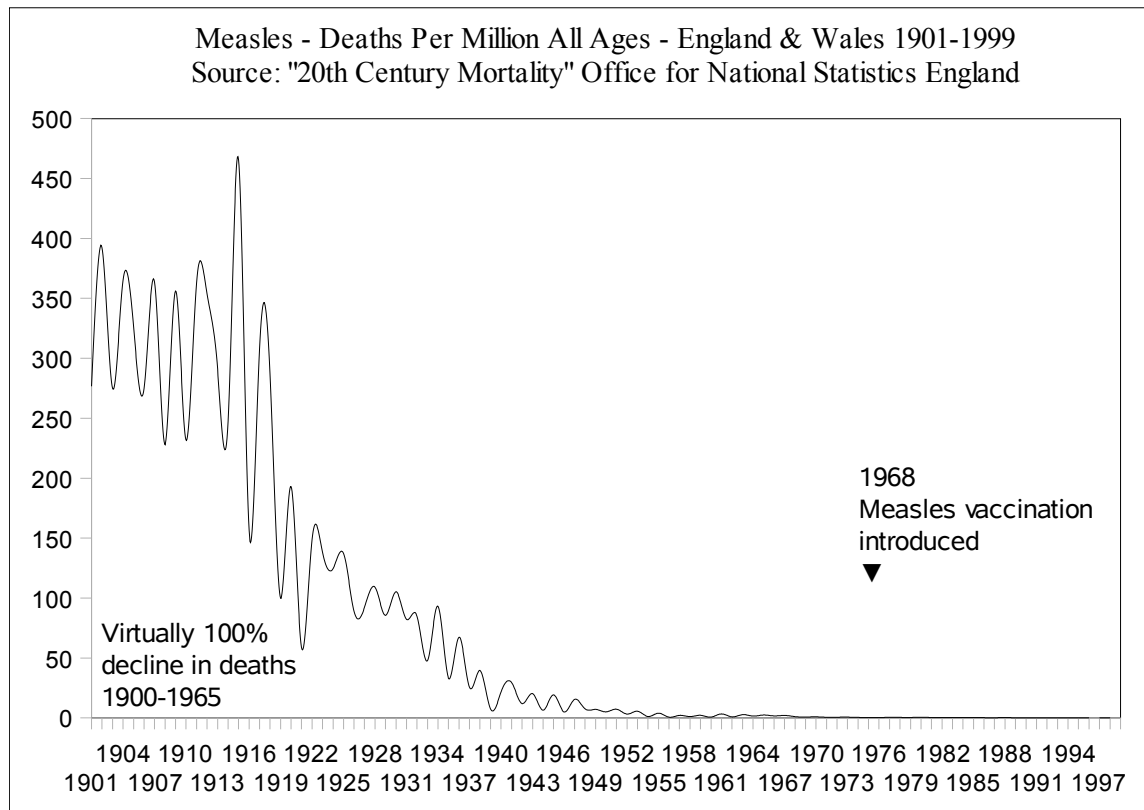
1 WHO Measles Fact sheet N°286 December 2009 <http://www.who.int/mediacentre/factsheets/fs286/en/>

2 Brincker JA A Historical, Epidemiological and Aetiological Study of Measles (Morbilli; Rubella): (Section of Epidemiology and State Medicine) Proc R Soc Med. 1938 May;31(7):807-28. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2076936/?tool=pubmed>.

3 Source of information for graphs: Deaths/Population 1867-1900, Registrar General's Annual Returns, 1901-1994 Twentieth Century Mortality CDROM Office for National Statistics. Measles mortality. From: Donegan JLM, Childhood Vaccinatable Diseases and their Vaccines, a Review <http://www.jayne-donegan.co.uk/articles>

4 Miller DL Frequency of complications of measles, 1963. Report on a National Inquiry by the public health laboratory service in collaboration with the society of medical officers of health. Br Med J. 1964 Jul 11;2(5401):75-8  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1815949/pdf/brmedj02558-0019.pdf>

5 Immunisation Uptake Rates – completed primary course: two year rate England and Wales 1966-77, England only 1978-195/6. Department of Health Statistics Division, Communicable Diseases surveillance Centre, UK



### What happens, then, when unvaccinated children get measles?

Measles outbreaks in unimmunised people tend to be mild in those who do not have underlying medical conditions. In communities which generally do not immunise, the attack rate in infants less than one year of age is low because of protection by the superior maternal antibodies derived from natural infection compared to those derived from vaccination<sup>6</sup>. Almost without exception, deaths occur in those with underlying medical conditions or poor nutrition or in those religious groups who refuse timely medical care when complications occur.<sup>7</sup> Those most at risk of complications from the disease are also those least likely to produce a good antibody response from being given the vaccine.

### What is happening now?

MMR vaccination started in the UK in 1988 with a second dose added in 1996. Nevertheless, in the first five months of 2011 almost 500 cases of measles have been notified.

In France, from having less than 50 reported cases of measles per year, there was an increase to 600 in 2008; 1500 in 2009; 5000 in 2010 and 10 000 cases up to the end of April 2011. Having measles is not a problem in itself. The problem is the cases of pneumonia and encephalitis with two deaths in 2010 (*1 death / 2500 notified cases*) and six deaths so far in 2011 (*1 death / 1666 notified cases*). There haven't been case fatality levels like this in the UK since the 1950s! In terms of health outcomes, we seem to be going backwards!

The measles cases are not coming from abroad. The European Centre for Disease Prevention and Control states that less than 10% of European Union (EU) cases are imported and more than 60% of those, come from another EU country<sup>8</sup>. So we are talking about

6 Sutter RW, Markowitz LE, Bennetch JM, Morris W et al, Measles among the Amish: a comparative study of measles severity in primary and secondary cases in households, J Infectious Diseases 1991;163:12-16

Outbreak of measles in a religious group - Montreal, Quebec, Canada Communicable Disease. Report 1995 ;1:1-5

Lennon JL, Black FL, Maternally derived measles immunity in era of vaccine-protected mothers, J Pediatrics 1986;671-6

7 Novotny T, Jennings CE, Doran M, March RC et al, Measles outbreaks in religious groups exempt from immunization laws, Public Health Reports 1988;103:49-54

Rodgers DV, Gindler JS, Atkinson WL, Markowitz LE, High attack rate and case fatality during a measles outbreak in groups with religious exemption to vaccination, Pediatric Infectious Disease Journal 1993;12:288-92

8 Annual Epidemiological Report on Communicable Diseases in Europe 2009 ECDC p25p172

generally well fed and housed people with a clean water supply.

## Then why are they suffering complications or dying?

When you meet a virus, whether you get infected at all, or have a mild, disabling or deadly episode depends on:

1. The state of your immune system when you meet it and
2. How you treat the illness.

Whatever the state of your immune system, you get *complications* from not treating infectious diseases correctly.

The first step in this process is to recognise that the infection is not your enemy but your friend. From an holistic point of view, diseases causing fever and rashes are regarded as detoxifying processes, enabling the body to clean itself out and go up a developmental step. Suppression of such processes is thought to lead eventually to long term, chronic illness.

The most important part in this process is fever. There is a substantial body of evidence indicating that fever is a beneficial response to infection which improves the ability of the immune system to carry out its function and that reducing fevers can increase morbidity (complications) and mortality (death) in severe infection. Heinz Eichenwald, Professor of Paediatrics at the South Western Medical School, University of Texas, states in the Bulletin of the WHO:

“Fever represents a universal, ancient, and usually beneficial response to infection, and its suppression under most circumstances has few, if any demonstrable benefits. On the other hand, some harmful effects have been shown to occur as a result of suppressing fever. It is clear, therefore, that the widespread use of antipyretics should not be encouraged either in developing countries or in industrial society.”<sup>9</sup> (Eichenwald, 2003)

## How are people with measles generally treated?

The World Health Organisation has some pretty good advice:

“Severe complications from measles can be avoided though supportive care that ensures good nutrition (*beforehand?*), adequate fluid intake and treatment of dehydration (through diarrhoea or vomiting) with WHO-recommended oral rehydration solution.”  
“Antibiotics should be prescribed to treat eye and ear infections, and pneumonia.”

## Is this what happens? No

The first thing that children are given is paracetamol or ibuprofen to reduce their fever – despite the fact that the WHO don't recommend it and the NHS NICE Guidelines 2007 state:

“Antipyretic agents should not routinely be used with the sole aim of reducing body temperature in children with fever who are otherwise well”. They should only be *considered*:

“in children with fever who appear distressed or unwell.” They also stress :

“Antipyretic agents do not prevent febrile convulsions and should not be used specifically for this purpose.”<sup>10</sup>

However the NHS Website NHS Choices recommends them as first line:

“If your child has measles, you may find the following advice useful: Use liquid baby paracetamol or ibuprofen to relieve *fever*, aches and pains.”

GPs recommend it six hourly, in hospital it is given four hourly, alone or in combination (even though NICE advise *against* using paracetamol and ibuprofen together). Antihistamines are given for itches and coughs; antibiotics are given when there is no bacterial infection – just in case; children are fed, over heated and kept in stuffy rooms – is it any wonder that they get *complications*?

## And this is just what is happening in France.

France has had the Measles Mumps Rubella (MMR) vaccine since 1986 with coverage of over 90% for the first dose and 40-70% for the second dose<sup>11</sup>. So instead of children being able to get measles, mumps and rubella at a beneficial age there is now an epidemic of measles sweeping across the country where 8% of cases are under one year old and 34% are over 20 years<sup>12</sup>, when complications are more common. This is compared to 1963 (England & Wales) when less than 4% of cases under one and 0.4% of cases over 20 years old.

[http://ecdc.europa.eu/en/publications/Publications/0910\\_SUR\\_Annual\\_Epidemiological\\_Report\\_on\\_Communicable\\_Diseases\\_in\\_Europe.pdf](http://ecdc.europa.eu/en/publications/Publications/0910_SUR_Annual_Epidemiological_Report_on_Communicable_Diseases_in_Europe.pdf)

9 Eichenwald HF Fever and antipyresis Bull World Health Organ [online]2003;81(5)2003:372-74 [http://www.scielo.org/scielo.php?script=sci\\_arttext&pid=S0042-96862003000500012&lng=en&nrm=is](http://www.scielo.org/scielo.php?script=sci_arttext&pid=S0042-96862003000500012&lng=en&nrm=is)

10 NICE Guidelines 2007 Feverish illness in children Assessment and initial management in children younger than 5 years pp 8 & 27 <http://www.nice.org.uk/nicemedia/live/11010/30523/30523.pdf>

11 Parent du Châtelet I et al Spotlight on measles 2010: update on the ongoing measles outbreak in France, 2008-2010 Euro Surveill. 2010 Sep 9;15(36). pii: 19656 <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19656>

12 Epidémie de Rougeole en France, Données de déclaration obligatoire en 2010 et données provisoire pour début 2011 [http://www.invs.sante.fr/surveillance/rougeole/Point\\_rougeole\\_220311.pdf](http://www.invs.sante.fr/surveillance/rougeole/Point_rougeole_220311.pdf)

Worse, it seems that no-one knows how to nurse a case of measles any more. In 2010, 30% of cases were hospitalised (38 % under one year, 47% over 20 years). In 1963, 1% of case in the UK were sent to hospital and 13% of those were for 'social' reasons. Even more incredible, of the cases admitted to French hospitals, only 30% had *complications*! If they don't have complications (and even if they do) why one earth would anyone in their right mind send someone with measles to hospital?

When you have measles the disease (or the vaccine) it lowers a part of your immune system, known as 'cell-mediated'<sup>13</sup>. This makes you susceptible to infection by other organisms – so the very last place you should be if you have measles is in a hospital, full of sick people, infectious diseases and MRSA. Six out of ten deaths from measles are from pneumonia. The main complications of measles are infections. Is it any wonder that there have been six deaths already this year?

### **There is also the vitamin A factor.**

Measles virus grows in the cells that line the back of the throat and lungs. Vitamin A is essential for the maintenance of this lining and others throughout the body. Vitamin A deficiency is a recognized risk factor for severe measles and since 1987 the WHO and UNICEF have recommended vitamin A treatment of children with measles; two doses of 200 000 IU for children over one year and 100 000 IU for infants, was found to reduce measles mortality by 62%<sup>14</sup> in poorer countries. Measles can also lower serum concentrations of vitamin A in well nourished children to less than those observed in non-infected malnourished children. When a child with marginal vitamin A stores gets measles, available vitamin A is quickly used up ... reducing the ability to resist secondary infections or their consequences, or both.<sup>15</sup>

### **How can you make sure your child has enough Vitamin A?**

Vitamin A is found abundantly in dairy products: butterfat, cream and cheeses from cows eating green grass; eggs from free range hens; liver; fish, shellfish, cod liver oil. The best plant sources of beta-carotene are yellow/orange vegetables and fruits like carrots, sweet potatoes, pumpkins, apricots, nectarines, peaches cantaloupes, papayas, mangoes, sour cherries, prunes, plums; and dark green leafy vegetables: spinach, broccoli, endive, kale, chicory, watercress and beet leaves, turnips, mustard, dandelion, asparagus and peas. In order to be absorbed, vegetable sources requires fat, so serve them with butter, coconut or olive oil. Chopping and puréeing also enhance their bioavailability.<sup>16</sup>

### **How contagious is measles?**

Measles is transmitted by coughing and sneezing. The virus containing particles can remain in the air for several hours and remain infective on surfaces for up to two hours. People are contagious for five days before the rash appears to four days after. It is estimated that 90% of non-immune people exposed to an infective individual will contract the disease.<sup>17</sup>

I was contacted in May 2011 by an indignant parent living in Switzerland whose healthy child had been excluded from school as he a) was not vaccinated and b) had been in contact with a measles case at school. She received a letter from the Assistant Director of Health Services for Youth telling her:

“Taking into account the incubation period of measles, the risk of being contagious is from day 6-21 following contact with a case. As your son is not vaccinated against measles, we ask you to keep him at home for the period when he could be contagious.”

So the child was made to stay away from school for two and a half weeks. As a home educator I can only think what a lovely opportunity it was to have your child away from school without being hounded by the authorities for non-attendance, as well, hopefully, as the chance to contract measles and develop good quality, long lasting antibodies. Alas, it was not to be; despite measles being one of the most contagious of the childhood exanthems (red spotty rashes) he did not get it. Instead, as his Mum said:

“We passed a nice couple of weeks together, he was very tired at the end of the school year anyway. Sadly he did not get measles but I will try to find someone with it.”

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13 Shaheen SO, Aaby P, Hall AJ, Barker DJP et al, Cell mediated immunity after measles in Guinea-Bissau: historical cohort study, *BMJ* 1996; 313:969-74 (6a) Aaby P et al 'Long-term survival after measles vaccination in Guinea-Bissau: Increased female mortality rate' *The Journal of Pediatrics* 1993;122:904-8.

14 Sudfeld CR, Navar AM, Halsey NA. Effectiveness of measles vaccination and vitamin A treatment.

*Int J Epidemiol.* 2010 Apr;39 Suppl 1:i48-55. Review. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2845860/pdf/dyq021.pdf>

15 Barclay AJ, Foster A, Sommer A. Vitamin A supplements and mortality related to measles: a randomised clinical trial. *Br Med J (Clin Res Ed).* 1987 Jan 31;294(6567):294-6.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1245303/pdf/bmjcred00005-0036.pdf>

16 Vitamin Basics: The facts about vitamins in nutrition <http://www.vitamin-basics.com/index.php?id=35>, Fallon S, Vitamin A Vagary <http://www.realmilk.com/vita.html>, Enig MG & Fallon S, Vitamin A - Safety and Clarification, 2010,

<http://www.puresante.com/1/post/2010/10/vitamin-a-safety-and-clarification.html>

17 European Centre for Disease Prevention and Control, ECDC Fact Sheet for Health Professionals

[http://www.ecdc.europa.eu/en/healthtopics/measles/basicfacts/Pages/health\\_professionals.aspx?MasterPage=1&PDF=true](http://www.ecdc.europa.eu/en/healthtopics/measles/basicfacts/Pages/health_professionals.aspx?MasterPage=1&PDF=true)

## So what about the single measles vaccine?

Everyone seems to think that this is the safe option. Well, it depends what you mean by safe. In my opinion it is safer than the MMR but I wouldn't go so far as to call it *safe*

I was called in June 2011 by a distraught mother in the UK whose son had had a single measles shot. He had a history of milk protein intolerance from birth, reflux and inflammatory bowel problems.

“He was OK with the first set of baby vaccines but had a bad fever with the second and was worse with the third. He had settled down by the time he was due his 12 month vaccines (*at that time, Hib and meningococcal C*) so he had them, and he got really ill the next day. He had an encephalitic cry (high pitched screaming) and fever. It took seven days to settle and lots of paracetamol for the fever. After loads of research we decided not to give him the MMR.

He's now two and a bit and is OK, apart from the medications for reflux and diarrhoea, but because of the measles epidemic that is happening around here, I got so scared that I decided to give him the single measles vaccine.

He was fine for the first week, then, on the eighth day he was playing on the floor when he looked up at me strangely, and then he started screaming and screaming with that high pitched cry— like before. He was beside himself. He felt really hot. I took him to the A&E Department where they gave him paracetamol. He had fever on and off for the next three days with screaming. We gave him lots of paracetamol. On the third night the fever stopped. We're now many days after that and he's still very different. Can you help?”

## Was it caused by the vaccine?

The onset of the symptoms is within the incubation period for measles, the vaccine is a live one. If a child has a vaccine and becomes unconscious or has a high fever with inconsolable crying, bowel changes, permanent disability or death, there will be one of two explanations given:

1. A certain number of these cases happen every day/ year, it would have happened anyway but as it occurred near the time that the vaccine was given, the vaccine is unfairly blamed or
2. Your child has an underlying condition and the vaccine just revealed the predisposition that was already there – it would have happened anyway.

However, if a child with an underlying condition suffers severe complications or dies during an episode of measles, it is always the measles that is blamed.

In addition, there is no reliable systematic monitoring of vaccine adverse reactions in Europe. “Implementation of vaccine registers and monitoring systems for adverse events following immunisation are a *priority* for EU member states”<sup>18</sup>, meaning they aren't implemented yet, nevertheless MMR is still said to be “the safest way to protect your child against measles”, though this is hard to believe when adverse reactions are not appropriately recorded.

## Are there any benefits to having the measles?

- A study conducted by the Danish epidemiologist Tove Rønne and published in the Lancet in 1985, found that having measles with a typical rash was associated with a lower incidence of developing immunoreactive diseases, sebaceous skin diseases, diseases of bone, cartilage and certain tumours in adult life<sup>19</sup>, unlike the 'atypical' variety with suppressed rash that occurs in people with immune disorders and after vaccination.
- Having measles was associated with a reduction in risk of skin testing positive to housedust mite at age 14-21 years<sup>20</sup>
- Early exposure to measles and family size may be associated with a lower risk of adult onset doctor diagnosed asthma<sup>21</sup>.
- Sensitivity to housedust mite was less frequent in children with a history of measles than in those without. A history of nebulized salbutamol use in A&E in the previous 12 months was less frequent in the measles group. Inhaled corticosteroid use was more common in the group without measles (*these all indicate lower incidence of asthma in the measles group*)<sup>22</sup>.

18 Annual Epidemiological Report on Communicable Diseases in Europe 2009 ECDC p25p172

[http://ecdc.europa.eu/en/publications/Publications/0910\\_SUR\\_Annual\\_Epidemiological\\_Report\\_on\\_Communicable\\_Diseases\\_in\\_Europe.pdf](http://ecdc.europa.eu/en/publications/Publications/0910_SUR_Annual_Epidemiological_Report_on_Communicable_Diseases_in_Europe.pdf)

19 Rønne T, Measles virus infection without rash in childhood is related to disease in adult life, Lancet 1985 Jan 5;1(8419):1-5

20 Shaheen SO, Aaby P, Hall AJ, Barker DJ, Heyes CB, Shiell AW, Goudiaby A. Measles and atopy in Guinea-Bissau. Lancet. 1996 Jun 29;347(9018):1792-6.

21 Bodner C, Anderson WJ, Reid TS, Godden DJ. Childhood exposure to infection and risk of adult onset wheeze and atopy. Thorax. 2000 May;55(5):383-7. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1745751/pdf/v055p00383.pdf>

22 Kucukosmanoglu E, Cetinkaya F, Akcay F, Pekun F, Allergol. Frequency of allergic diseases following measles. Immunopathol (Madr). 2006 Jul-Aug;34(4):146-9. [http://apps.elsevier.es/watermark/ctl\\_servlet?f=10&pident\\_articulo=13091040&pident\\_usuario=0&pcontactid=&pident\\_revista=105&ty=135&accion=L&origen=elsevier&web=www.elsevier.es&lan=en&fichero=105v34n04a13091040pdf001.pdf](http://apps.elsevier.es/watermark/ctl_servlet?f=10&pident_articulo=13091040&pident_usuario=0&pcontactid=&pident_revista=105&ty=135&accion=L&origen=elsevier&web=www.elsevier.es&lan=en&fichero=105v34n04a13091040pdf001.pdf)



- A statistically significant inverse association between measles vaccination and atopic (allergic) sensitization was found in relation to allergen-specific serum IgE level of 3.5 kU/L.<sup>23</sup> (*meaning those with measles had less allergy*)

There were 1131 deaths from asthma in the UK in 2009 (12 were children aged 14 years or under)<sup>24</sup>. There haven't been that many deaths from measles since 1941.

Paracetamol use is also associated with increases wheeze and diagnosed asthma in the countries with the highest sales<sup>25</sup>

Are we trading a generally benign childhood illness for a chronic disease with a higher death rate when we try to eradicate measles and suppress fevers?

## What should you do if your child develops measles?

Put them to bed, open the window (preferably nurse them in the garden), give them plenty of clear fluids and NO FOOD unless STARVING.<sup>26</sup> You might want to give them some homeopathic remedies or keep them in a darkened room. I remember lying in a boiling hot room in the dark, many years ago when I had measles as a child in Bahrain. It was horrible. But at the end of it I had good quality antibodies which have kept me immune from measles ever since, I was able to pass them on to my children when they were babies - and I don't have asthma either!

A study of a measles outbreak in 1997-8 in a Steiner community in Gloucester, England, reported that there were no severe cases. Moreover, 62% of the respondents to a questionnaire reported a strengthening and maturing of their child both mentally and physically after the measles infection. Dr Duffell from Gloucestershire Health Authority remarked,

*"The findings of low levels of morbidity (complications) associated with measles are similar to previous studies in the United Kingdom, and support the notion that measles is not a severe illness in most children. These cases were, however, in fit, well nourished children from a community that advocates a healthy lifestyle and there were insufficient numbers of cases to observe many of the rarer sequelae."*

However, advocating a healthy lifestyle is not an option that the Department of Health or GPs offer to parents who ask what they can use as a viable alternative to measles vaccination.

## Which will you choose?

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Please note that almost every reference referring to measles quoted in this paper recommends that children are vaccinated against measles. All references for which there is a link were last accessed in June 2011.

More detailed information on measles and other vaccinatable diseases can be obtained from: Donegan JLM, Childhood Vaccinatable Diseases and their Vaccines, a Review <http://www.jayne-donegan.co.uk/articles>

***To book a telephone or in person consultation, to discuss health or vaccination issues, or if you would be interested in hosting a lecture or workshop in your area, please call: T/F 0044 (0)20 8632 1634 (and leave a clear message) or email: [jaynelmdonegan@yahoo.com](mailto:jaynelmdonegan@yahoo.com)***

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