

**Glyphosate, Roundup, Glyphosate-Tolerance GM Soybeans,  
Chemical Extracted Soybean Food Oil/Soybean Powder  
Cause Serious Harm to Health of American/Chinese People**

Reference Information

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## **Twelve Health Deteriorate Trends in Both USA and China**

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- 6) 8.3% Americans Have Diabetes, 9.7% Chinese Have Diabetes Exceeding USA, the Risk is Very High for the "East Asian Weakling" Nightmare to Arrive Again for China!**
- 7) About one in every 33 babies (about 3%) is born with a birth defect, including approx 1% diagnosed with congenital heart defects in USA; the incidence of newborns with defects in China at present is about 5.6%, the incidence of newborns with defects shows a trend of increase, increased from 877,000 in 1996 to 1.499 million in 2010, increase rate 70.9%, with congenital heart disease becomes the number one defect!**
- 8) In USA, 78% increase of autism during 2007 - 2010, In China, autism rate in various areas has reached 1.5%, increased 10 times over 20 years, environmental, chemical, biological factors pointed as the culprit!**
- 9) Studies indicate possible links between Alzheimer's disease and Parkinson's disease, indicate 10% increase of annual incidence of Alzheimer's disease from 2000 to 2010 in USA; During the past 20 years (1998 - 2008), the average ages of Alzheimer's disease patients has advanced from 65 years to 55 years; In the USA, 50,000-60,000 new cases of Parkinson disease are diagnosed each year; Based on most conservative estimations, the incidence of Parkinson disease during recent 20 years in China has at least increased over 20 times!**
- 10) 1988-2004 USA incidence of primary liver cancer rapidly rose 90%, China's liver cancer patients accounts for 54.26% of World's total**
- 11) Children cancer increasing, especially leukemias, dramatically increased in USA and China.**
- 12) Inflammatory Bowel Diseases rapidly increased 65 percent increase from 2000 to 2009, and increased 12 times in Shanghai from 2003 to 2013!**

## 1) USA Infertility Reaching 15%, China Closely Following Infertility Patients Already Exceeding 50 Million

### USA infertility continue increases: 1995 10%; 2002 12%; 2009 15%

- **1995:** According to National Survey of Family Growth, CDC 1995, **approximately 6.1 million women and their partners in the U.S. are affected by infertility, i.e., 10% of the total reproductive-age population.** [2]
- **2002:** Infertility affects about 7.3 million women and their partners in the U.S. -- **about 12% of the reproductive-age population** (Source: *National Survey of Family Growth, CDC 2002*). [3]
- **2009:** **Based on reported cases alone, almost 15 percent of adult Americans experience infertility.** Despite medical advances in the treatment of infertility over the last two decades, that rate has not declined. In fact, most experts believe it has risen. Meanwhile, as the population of the United States has grown since 1970, the number of infertile couples has more than doubled. **At present, an estimated 9 million individuals are affected by infertility.** [4]

### China: In China, the rate of infertile couples has reached 1/8, the number of infertile patients has exceeded 50 million!

- Wu Jing-chun, Executive Committee Member of China Women Federation, former Deputy Director of China Birth Planning Commission, on the "Sino-U.S. Infertile Academic Forum" held in Dec., 2011 stated, due to various factors and work pressure, the ratio of infertile couples have reached 1/8, infertile patients have exceeded 50 million in China, and are gradually increasing. She said, a birth crises is approaching. [5]
- Prof. Chen Qiu-bo, honorary director, Hangzhou Guangren Infertility Research Institute, in March 2012 pointed out: Statistics show, the infertility incidence among appropriate age couples is sharply increasing, the average incidence in the country is 12.5%-15%, meaning, one infertility among each 8 couples. [6]

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## 2) Precocious puberty Rapidly Increase in both USA and China

### USA:

About 15 percent of American girls now begin puberty by age 7, according to a study of 1,239 girls published last year in the journal *Pediatrics*. One in 10 white girls begin developing breasts by that age - twice the rate seen in a 1997 study. Among black girls, 23 percent hit puberty by age 7. [1]

### China:

- The age of children in Guangzhou entering puberty has from average 13 years old advanced to 11 years; Based on study of a few thousand children in Guangdong province, the rate of "early puberty" has increased from 0.5% in 1994 increased to 1.3% in 2004, the average rate of "early puberty" in China is 1%. [2]
- Early puberty rate survey of 23 thousand children in Zhejiang coast area reveals: 84 children were identified early puberty, 9 boys and 75 girls, indicating rate of early puberty 0.38%, and girls with early puberty is 7.3 times of boys.
- The survey also revealed that the rate of early puberty is 0.45% in cities and towns, higher than 0.32% in rural areas; 0.50% in economic developed areas, and 0.32% in undeveloped areas; 0.52% in areas close to highways and industrial polluted areas, and 0.28% in less polluted areas.

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<http://www.zjol.com.cn/05zjnews/system/2005/05/30/006122163.shtml>

### 3) USA and China's Children Asthma Incident Rate Increase Year by Year, Even if Air Quality is Improved

#### USA:

- CHICAGO (Reuters) - About 25 million Americans, or 1 in 12 people, have asthma, a figure that is rising despite efforts to control key asthma triggers such as indoor smoking, U.S. government researchers said on Tuesday.
- According to the U.S. Centers for Disease Control and Prevention, an additional 4.3 million people were diagnosed with asthma from 2001 to 2009. The life-long disease causes wheezing, tightness in the chest, coughing and shortness of breath.
- "Despite the fact that outdoor air quality has improved, we've reduced two common asthma triggers - secondhand smoke and smoking in general -- asthma is increasing," Paul Garbe, chief of the CDC's Air Pollution and Respiratory Health Branch, said in a statement.
- Asthma diagnoses increased among all demographic groups between 2001 and 2009, but children were hit hardest, with asthma affecting 9.6 percent of children, compared with 7.7 percent of U.S. adults.

#### China:

It is learn that there is close to 300 million asthma patients, China has close to 30 million asthma patients, incident rate is between 1% to 4%, children below 16 years old have an even higher incident rate. [7] The national average level is 1.84%. [9]

According to the national epidemiology investigation on children, the asthma incident rate has increased 60% during the past 10 years. [6]

Beijing: In Beijing, the children asthma incident rate among 0-14 year age group has already exceeded 2%, meaning each middle school, primary school class on average has one asthma child. [6]

Nanjing: The Nanjing Children Hospital every ten years carries out sample survey on incidents of children asthma. Zhao De-yu told the journalist: "According to our investigation, in 2000 the incident of children asthma in the 0 – 14 age group was about 2.3%, by 2010 has exceeded 3%." Zhao is Director, Internal Medicine, Nanjing Children Hospital, as well as vice director of pediatric specialist, Pediatric Sub-division, Nanjing medical association. [7]

Zhao De-yu reported, the incident of asthma increases year by year. In 1990, the asthma incident in Nanjing was 1.4%, but by 2000 has almost doubled, reaching 2.3%. "Our Asthma outpatient service earlier received about 40 – 60 patients each morning. Since the past 1 – 2 years, each weekend morning could reach 200 patients."

Jinan: The journalist learnt at a number of hospitals during activities seeing patients on volunteer basis, due to environment and other factors, the incidents of children asthma has significantly increased compared with 10 years ago. [8]

On the "World Asthma Day" (2011-05-04) during activities seeing patients on volunteer basis, the Shandong Provincial Hospital and the Shangdong University Qilu Children's Hospital examined 164 children, and 46 of them were diagnosed with asthma.

Xiamen: According to the national epidemiology investigation on children in 2000, children's asthma incident rate in Xiamen is 3.96%, much higher than the national average level of 1.84%. [9]

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**4) USA and China's Children with Chronic Diseases Rapidly Increase: The percentage of children with a current chronic disease rose to 25% in 2000-2006, the percentage of kids who had ever had a chronic illness grew to 52% in the same time in USA; In China, among children, youth and youngsters, incident rate of high blood pressure 9%, lipid disorders 9.8%; based on survey in a number of provinces and cities, the incident rate of pre-school age children with high blood pressure has already reached 2% - 4%, and for school children already 4% - 9%!**

#### USA

- A follow-up study of 5,001 children from 1988 to 2006 and followed each child for six years, published by *Journal of the American Medical Association* in Feb. 2010 shows: More than half of children ages 8 to 14 have had a long-term health problem at some point, such as obesity, asthma, a learning disability or other ailment. [1] Though the percentage of children with a current chronic disease rose to 25% in 2000-2006, the percentage of kids who had ever had a chronic illness grew to 52% in the same time. [1-2]
- Much of the increase in chronic diseases was a result of obesity, says author Jeanne Van Cleave of the MassGeneral Hospital for Children in Boston.[1]
- In another study published in *Academic Pediatrics*, an estimated 43% of US children (32 million) currently have at least 1 of 20 chronic health conditions assessed, increasing to 54.1% when overweight, obesity, or being at risk for developmental delays are included. This tells us matters are much worse now—perhaps 50% are now chronically ill not counting obesity. [2]
- Furthermore, as this study is based on latest data 2007 data, 4 years old data, thus the situation in 2012 should be even worst![2]
- The study published by the June 2011 issue of *Academic Pediatrics* also said, developmental disability is on the rise in the U.S. Between 1997 and 2008, the number of school-age children diagnosed with autism, ADHD, or another developmental disability rose by about 17 percent. It also said roughly 15 percent of kids – nearly 10 million – have such a disability.[2-3]
- These rates will continue to increase, in view of one of the authors[2], since nothing is really changing in terms of the amount of unhealthy, industrially processed foods families and children eat, the poor USDA dietary guidelines being promoted as healthy, the very high rate of vaccinations and their damages inflicted, a continuing flow of pharmaceuticals, and of course, other environmental and lifestyle factors. So in five years we may be looking at 60-70% of American children being chronically ill and even more obesity and infertility.[1]
- A further study published by the *Archives of Psychiatry* in March and it found that the U.S. has the highest in the world lifetime rate of bipolar disorder at 4.4%, and India the lowest, with 0.1%, as reported by CNN. In other words, the U.S. has 44 times more bipolars (manic-depressives) than India. Bipolar disorder is characterized by cycles of depression and mania, a euphoric, high-energy state that can result in heightened levels of creativity or output as well as erratic or risky behavior. People with bipolar disorder are at high risk of substance abuse and suicide, and treatment includes psychiatric care and medication. [2]
- Boys had a higher prevalence overall and for a number of select disabilities compared with girls. Hispanic children had the lowest prevalence for a number of disabilities compared with non-Hispanic white and black children. Low income and public health insurance were associated with a higher prevalence of many disabilities. Prevalence of any developmental disability increased from 12.84% to 15.04% over 12 years., i.e. a 17% increase. Autism, attention deficit hyperactivity disorder, and other developmental delays increased, whereas hearing loss showed a significant decline. These trends were found in all of the sociodemographic subgroups, except for autism in non-Hispanic black children. [4-5]
- "We don't know for sure why the increase happened," study author Sheree Boulet of the Centers for Disease Control and Prevention, told Reuters. [4]
- But Philip Landrigan of the Mount Sinai School of Medicine in New York City, told USA Today that improvements in diagnosis can't fully explain the increase. Research suggests that environmental chemicals - including pesticides and the phthalates found in soft plastics - can affect kids' mental development, he said. [4]

#### China:

- The result of the recently announced “2010 China’s Urban Health Survey” indicates, chronic disease incidents in China appear with a trend towards younger ages. Sanitation specialists suggest, should enhance guidance and interference to individual lifestyle. Mortality caused by chronic diseases accounts to 80% in China. As social pressure increases, medium-age and young people with chronic disease begins to increase, with a trend of which incident rates gradually increase year by year. Specialists consider, compared with infectious disease, the latent period of chronic disease is rather long, thus should give emphasis on prevention. [6]

- China carries out national resident nutrition and health condition survey every 10 years. According to the recent survey, obesity and overweight already become an outstanding health problem among urban children, youth and youngsters. The result of the 2005 national student corporeity and health survey also indicated, the obesity rate and overweight rate of urban boys 7 – 22 years age has already reached 13.25% and 11.39%, 1.4% and 2.7% respectively higher than 2000. [7]
- Yang Xiao-guang, researcher, China CDC, considers, it is estimated that the incidents of overweight and associated chronic diseases shall increase substantially during the next 10 – 20 years. If powerful interference actions are not adopted, the ratio of residents with normal body weight shall reduce from 70% at present to 1/3. [7]
- In China, within every 10 diabetes patient, one of them is a youth or youngster, with type 2 diabetes increasing most rapidly. Estimated accordingly, China already has close to 10 million youth and youngsters with diabetes. With Beijing as example, within the 6 – 18 year age group of urban and rural children and youngsters, the incident rate of diabetes is 0.57%; the incident rate of impaired fasting glucose (IFG) i.e. pre-diabetes, has already reached 1.35%. Since the 80s of the past century, the incident rate of diabetes in China almost doubles every 10 years. [8]
- The Beijing Health Bureau organized a number of hospitals to carry out an overall survey of overweight, high blood pressure, type 2 diabetes and lipid disorders among age group below 18 years. The result shows: Among children, youth and youngsters, incident rate of high blood pressure 9%, lipid disorders 9.8%. This means, within every 100 children there is about 9 children with high blood pressure, and about 10 children with dyslipidemia. And among children with diabetes, those with type 2 diabetes already accounted to 43%, compared with less than 5% 10 years ago. Specialist analysis, the overweight is the key for causing the increasing trend of these diseases. In Beijing, the rate of overweight among children, youth and youngsters, is already close to 10%, meaning a 47% increase since 2000. [9]
- Prof. Wang Wen, National Cardiovascular Center, Fuwai Hospital of China Academy of Medical Science, points out, based on survey in a number of provinces and cities, the incident rate of pre-school age children with high blood pressure has already reached 2% - 4%, and for school children already 4% - 9%, in which overweight children are majority. In USA and Japan, the incident rate for children respectively is 14.1% and 13.3%. High blood pressure is quietly stealing Children's health. [10]

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**5) USA and China's Patients Reason Unclear Increase During Past Ten Years: 44% of Americans in 2005 had at least one chronic medical condition; Chinese residents with chronic disease is already 20%, the total number of determined diagnosed chronic patients reach 260 million. During past ten years, there are 10 million chronic disease patents newly diagnosed each year.**

**USA:**

- Based on government survey data, 44 percent of Americans in 2005 had at least one chronic medical condition, which could include diabetes, high blood pressure, high cholesterol levels, cancer, arthritis, heart failure and others. That compares to 41 percent in 1996. The percentage of Americans with three or more chronic illnesses rose even more sharply, from 7 percent in 1996 to 13 percent in 2005. [1]

**China:**

- At the same time our nation's economy enjoys rapid development, we are also encountered by the heavy burden of chronic diseases, of which incidences is quickly increasing, and appearing among younger people. "During past ten years, the number of diagnosed chronic disease patients has increased 14.3%, which include diabetes increasing over three times, high blood pressure increasing over 1.5 times, cerebrovascular disease increasing one time, coronary heart disease increasing 63%, cancer increasing 60%." Result of the 4<sup>th</sup> National Sanitation Service General Survey show, the percentage of Chinese residents with chronic disease is already 20%, the total number of determined diagnosed chronic patients reach 260 million. During past ten years, there are 10 million chronic disease patents newly diagnosed each year. Chronic diseases account for the cause of 85% mortality, and 69% of the medical care financial burden. Chronic diseases bring substantial burden to family life, sanitation service system and public fiancé, especially have serious effect on the low income population, According to statistic, the percentage of chronic disease medical treatment cost within the total sanitation expenditures has already from 47.4% in 1990 increased to 70% in 2008, amounting to about RMB850 billion (approx. USD133 billion), have already become a serious public sanitation problem and social problem. The WHO estimates, China's direct medical costs for chronic diseases by 2015 will exceed USD500 billion.
- Report "China Chronic Disease Report and New Developments in International Chronic Disease Prevention and Control" by Wang Shi-yong, Senior health specialist, World Bank China Office, revealed:
- Shi Xiao-ming, Chief, Chronic Disease Community Section, CDC, revealed: At present China has 305 million obese, 120 million overweight, 236 million high blood pressure, 32.92 million high cholesterin and 96.81 million diabetes patients.
- China's middle and old age people have on average 3.1 types of diseases.
- In April, 2011, the Ministry of Health issued The China Chronic Disease Report. The Report shows that the health of Chinese residents is facing serious challenge by chronic diseases. The first 4<sup>th</sup> causes of deaths are cerebrovascular disease, cancer, respiratory system disease and heart disease, all chronic disease. [2]
- Chronic disease is one of the greatest challenges to health of mankind. At the same time our nation's economy enjoys rapid development, we are also encountered by the heavy burden of chronic diseases, of which incidences is quickly increasing, and appearing among younger people. The number of already diagnosed chronic patients exceeds 260 million. Chronic diseases account for the cause of 85% mortality, and 69% of the medical care financial burden. Chronic diseases bring substantial burden to family life, sanitation service system and public fiancé, especially have serious effect on the low income population, have already become a serious public sanitation problem and social problem. [3]
- Li Lian-da, Academician, China Academy of Engineering, revealed: "During past ten years, the number of diagnosed chronic disease patients has increased 14.3%, which include diabetes increasing over three times, high blood pressure increasing over 1.5 times, cerebrovascular disease increasing one time, coronary heart disease increasing 63%, cancer increasing 60%." [4]
- Result of the 4<sup>th</sup> National Sanitation Service General Survey show, the percentage of Chinese residents with chronic disease is already 20%, the total number of determined diagnosed chronic patients reach 260 million. During past ten years, there are 10 million chronic disease patents newly diagnosed each year. Chronic disease already account as the cause of over 80% mortality.
- "In our nation, chronic disease already forms a major threat to public health." Kong Ling-zhi, Deputy Director, China CDC, says. According to statistic, the percentage of chronic disease medical treatment cost within the total sanitation expenditures has already from 47.4% in 1990 increased to 70% in 2008, amounting to about RMB850 billion (approx. USD133 billion).
- The WHO estimates, China's direct medical costs for chronic diseases by 2015 will exceed USD500 billion.

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## **6) 8.3% Americans Have Diabetes, 9.7% Chinese Have Diabetes Exceeding USA, the Risk is Very High for the "East Asian Weakling" Nightmare to Arrive Again for China!**

USA: [1]

- Total prevalence of diabetes
- **Total:** 25.8 million children and adults in the United States—8.3% of the population—have diabetes.
- **Diagnosed:** 18.8 million people; **Undiagnosed:** 7.0 million people; **Prediabetes:** 79 million people\*
- **New Cases:** 1.9 million new cases of diabetes are diagnosed in people aged 20 years and older in 2010.
- **Under 20 years of age**
- 215,000, or 0.26% of all people in this age group have diabetes
- About 1 in every 400 children and adolescents has diabetes
- **Age 20 years or older:** 25.6 million, or 11.3% of all people in this age group have diabetes
- **Age 65 years or older:** 10.9 million, or 26.9% of all people in this age group have diabetes
- **Men:** 13.0 million, or 11.8% of all men aged 20 years or older have diabetes
- **Women:** 12.6 million, or 10.8% of all women aged 20 years or older have diabetes
- **Race and ethnic differences in prevalence of diagnosed diabetes**
- After adjusting for population age differences, 2007-2009 national survey data for people diagnosed with diabetes, aged 20 years or older include the following prevalence by race/ethnicity: 7.1% of non-Hispanic whites; 8.4% of Asian Americans; 12.6% of non-Hispanic blacks; 11.8% of Hispanics
- Among Hispanics rates were: 7.6% for Cubans; 13.3% for Mexican Americans; 13.8% for Puerto Ricans

China:

**In China, the rate of diabetes has increased ten fold during past 10 years, reached 9.7% at present, with about 150 million categorized under high risk of the illness!**

[2]

On 2011-11-24, Ji Li-nong, Director Committee Member of the Diabetes Sub-society of the China Medicine Society, at the No.15<sup>th</sup> national academic conference of the Diabetes Sub-society of the China Medicine Society (CDS2011) present the specialty speech. Ji Li-nong reported that **China's diabetes patient rate has doubled within the last decade, reached now 9.7%, making China the largest diabetes patient nation of the world, higher than the global average diabetes rate of 6.4%. At the same time, the diabetes high risk population is also expanding, about 150 million people at present.**

**Shanghai's survey indicates: Diabetes patients in Shanghai during 2002 – 2009 rapidly increased 60%.**

Xu Wanghong et al., Public Health College of Fudan University, jointly with Shanghai CDC, developed surveys of two groups of population which indicated, during 2002 – 2009, there was rapid increase in diabetes patients in Shanghai, diagnosed diabetes patients rose 45%, undiagnosed diabetes patients rose 13%. [3]

**China becomes world's largest diabetes nation [4]**

- China now has more people with diabetes than any other country, a new report shows, making it clear that the nation's soaring economic growth is taking a toll on public health.
- According to the report, more than 92 million adults in China have diabetes, and nearly 150 million more are well on their way to developing it. The disease is more common in people with large waistlines and in those who live in cities, the report indicates.
- The Federation projected last year that some 435 million people would have diabetes by 2030. "With this new study, we're going to have to rerun our estimate," Whiting told Reuters Health.
- The report, published Thursday in the New England Journal of Medicine, is based on

a nationally representative sample of more than 46,000 people who were tested for diabetes. [5]

- Based on their findings, the researchers calculate that about 50 million men and 42 million women have diabetes, or almost 1 in 10 adults. And in most cases, the disease is undiagnosed.
- The prevalence is twice as high as estimates suggested by previous studies, which did not use World Health Organization-recommended tests to diagnose diabetes, and is similar to US numbers. It would place China far ahead of India, whose estimated 50 million diabetics lands it a dubious second place in terms of the total number of people with diabetes.
- "These data really show diabetes has become a major epidemic in China," Dr. Jiang He, of Tulane University in New Orleans, told Reuters Health.
- **He, who worked on the new study with colleagues in China, noted that diabetes is a risk factor for heart disease, which is now the biggest killer in the country. "We basically need to make diabetes one of the top priorities for public health in China," he said.**

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**7) About one in every 33 babies (about 3%) is born with a birth defect, including approx 1% diagnosed with congenital heart defects in USA; the incidence of newborns with defects in China at present is about 5.6%, the incidence of newborns with defects shows a trend of increase, increased from 877,000 in 1996 to 1.499 million in 2010, increase rate 70.9%, with congenital heart disease becomes the number one defect!**

#### USA:

- In the United States, about one in every 33 babies (about 3%) is born with a birth defect. Birth defects are one of the leading causes of infant deaths, accounting for more than 20% of all infant deaths. [1]
- Congenital heart defects are diagnosed in approximately 1% of births in the United States and account for the largest proportion of infant mortality attributable to birth defects. [2]
- Congenital heart defects affect approximately 1% of live births, of which 25% are estimated to be critical and require surgery or catheterization within the first year of life.[3]
- In Michigan, the prevalence of CHDs reported by 1 year of age for whites increased slightly from about 99 cases per 10,000 live births in 1992 to about 135 cases per 10,000 live births in 2006, i.e. an increase of 36.36%. [4]
- Congenital heart defects (CHDs) account for 24% of infant deaths due to birth defects. In the United States, about 4,800 (or 11.6 per 10,000) babies born every year have one of seven *critical congenital heart defects* (CCHDs). [5]
- In 2003, congenital cardiovascular defects contributed only 0.5 percent of CVD deaths; however, they remain a leading cause of death in infants and children. Among children ages 5–11, data from the Bogalusa Heart Study have shown that 27.1 percent now have one or more risk factors for heart disease and that an additional 6.9 percent have two or more risk factors. Taken together, these epidemiological findings are great cause for alarm. [6]
- In the United States, hospital costs for people with a heart defect were about \$1.4 billion in one year. Families and the government share the burden of these costs, which means that all taxpayers are affected. Other costs due to lost wages or work limitations can affect families and businesses as well.[7]
- CDC: The cause of most congenital heart defects is unknown. [7]

#### China:

- It is estimated that the incidence of newborns with defects in China at present is about 5.6%, the number of newborns each year is about 900,000, which includes about 25,000 newborns with clinical apparent defects at born. [8]
- During recent years, the incidence of newborns with defects shows a trend of increase, increased from 877,000 in 1996 to 1.499 million in 2010, increase rate 70.9%. In 2010, the first 5 types of defects of newborns identified by hospital

examination are congenital heart disease, many fingers (toe), total cleft lip, congenital hydrocephalus and a neural tube defects. The defects account for 49.1% of all defects of newborns, in which congenital heart disease becomes the number one defect. [9]

- The sequence of birth defects in the national infant deaths, ranked No.4 in 2000, which advanced to No.2 in 2011, reaching 19.1%. [8]
- In 2011, congenital heart defects account to 26.7% of all the newborns found with defects during monitoring. [8]
- During 2000 – 2011, the incidence of perinatal congenital heart disease is on the rise. In 2011, the average incidence of newborn congenital heart defects is 3.56 times of 2000, 4.41 times in urban areas, and 2.97 times in rural areas. [7]
- The national prevalence of perinatal birth defects decreased to 145.64 and 145.06 per 10,000 in 2012 and 2013 respectively, compared with 153.23 in 2011, meaning at least 16,000 fewer children with birth defects in the past two years, said Zhang Shikun, director of the commission's maternal and child health service bureau, at a press conference. [10]

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**8) In USA, 78% increase of autism during 2007 - 2010, In China, autism rate in various areas has reached 1.5%, increased 10 times over 20 years, environmental, chemical, biological factors pointed as the culprit!**

#### USA:

- CDC estimates (2010) 1 in 88 children (11.3 per 1,000) has been identified with an autism spectrum disorder (ASD). [1]
- This marks a 23% increase since our last report in 2009. And, a 78% increase since our first report in 2007. Some of the increase is due to the way children are identified, diagnosed and served in their local communities, although exactly how much is due to these factors is unknown. [1]
- ASDs are almost 5 times more common among boys (1 in 54) than among girls (1 in 252). [1]
- The largest increases over time were among Hispanic children (110%) and black children (91%). [1]
- California autism prevalence more than tripled from 1987 to 1998 [2]
- The California scientists “were at a loss to explain the reasons for what they called an epidemic of autism” in 2002 [2]
- “The causes of autism to be more environmentally influenced than previously

thought” – Findings by Canadian Scientists in 2012 [4]

- Published in the January 2009 issue of the journal *Epidemiology*, results from the study also suggest that research should shift from genetics to the host of chemicals and infectious microbes in the environment that are likely at the root of changes in the neurodevelopment of California's children. [5]
- "It's time to start looking for the environmental culprits responsible for the remarkable increase in the rate of autism in California," said UC Davis M.I.N.D. Institute researcher Irva Hertz-Picciotto, a professor of environmental and occupational health and epidemiology and an internationally respected autism researcher. [5]
- The incidence of autism by age six in California has increased from fewer than nine in 10,000 for children born in 1990 to more than 44 in 10,000 for children born in 2000. [5]

#### China:

- In China, there are now over 1 million children with autism, which is rapidly increasing, the autism rate in various areas has reached 1.5%, increased 10 times over 20 years! [6-7]
- Changchun: Autism prevalence rate 1.5% for children age 2 – 6 years [9]
- Harbin: Autism prevalence rate apparent increase trend, 2.27% for children age 2 – 6 years. [10]
- Shenzhen: Autism prevalence rate 1.32% for children, five folds of the national average rate 0.025%. [11]
- Nanjing: Autism rate of children have increased to 10 times within 20 years. “Specialists indicate, the fundamental reason causing autism is still not so clear at present, and there is not special effective drugs, early education is the main means of interference.” [12]
- Shenyang: Children with autism have increased at the rate of 300 – 400 each year, indicating a trend of rapidly increasing! [13]
- Shanghai: Shanghai has over 8,000 autism patients, Children autism rate has reached 0.6% [14]

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USA:

- Studies Investigate Links Between Parkinson's Disease and Alzheimer's Disease
- Parkinson's disease (PD) and Alzheimer's disease (AD) are common neurodegenerative diseases associated with aging. People can develop both PD and AD, leading researchers to consider whether there are links between the two diseases. Two new studies have found that the two diseases do not appear to share genetic characteristics but may be linked by proteins. [1]
- In the genetics study, published in the August 5 online edition of *JAMA Neurology*, researchers analyzed genome-wide association (GWA) studies of PD and AD to look for genetic variants shared by both diseases. The study was led by author Valentina Moskvina, Ph.D., of the Cardiff University School of Medicine in Wales, in collaboration with an international team that included researchers from the National Institutes of Health. The team reviewed GWA studies of thousands of people with AD and PD, to see if any genetic variants increased the risk of both diseases. [2]
- The second study, published in the July 3 online edition of *Cell* by a team from the University of Pennsylvania led by Virginia Lee, Ph.D., investigated proteins found in AD and PD. Most neurodegenerative diseases are characterized by the accumulation of abnormal forms of certain proteins – for example, tau and amyloid in AD and alpha-synuclein in PD. Studies have shown some overlap in the pathology of AD and PD: more than 50 percent of people with AD show alpha-synuclein deposits and people with PD commonly have tau deposits. To better understand any relationship, researchers conducted experiments with alpha-synuclein involving mice and cell cultures.[3]

**USA: Alzheimer's disease**

- Alzheimer's disease is the most common type of dementia. "Dementia" is an umbrella term describing a variety of diseases and conditions that develop when nerve cells in the brain (called neurons) die or no longer function normally. The death or malfunction of neurons causes changes in one's memory, behavior and ability to think clearly. In Alzheimer's disease, these brain changes eventually impair an individual's ability to carry out such basic bodily functions as walking and swallowing. Alzheimer's disease is ultimately fatal. [4]
- An estimated 5.2 million Americans of all ages have Alzheimer's disease in 2013. This includes an estimated 5 million people age 65 and older [5], and approximately 200,000 individuals under age 65 who have younger-onset Alzheimer's. [6] [4]
- In 2000, there were an estimated 411,000 new cases of Alzheimer's disease. For 2010, that number was estimated to be 454,000 (a 10 percent increase); [4]
- By 2025, the number of people age 65 and older with Alzheimer's disease is estimated to reach 7.1 million — a 40 percent increase from the 5 million age 65 and older currently affected. [7]

**USA: Parkinson's disease**

- Parkinson's disease (PD) is a chronic and progressive movement disorder, meaning that symptoms continue and worsen over time. Parkinson's involves the malfunction and death of vital nerve cells in the brain, called neurons. Parkinson's primarily affects neurons in the an area of the brain called the substantia nigra. Some of these dying neurons produce dopamine, a chemical that sends messages to the part of the brain that controls movement and coordination. As PD progresses, the amount of dopamine produced in the brain decreases, leaving a person unable to control movement normally. [8]
- Parkinson's disease is the 14th leading cause of death in the United States, according to the Centers for Disease Control and Prevention's annual analysis of mortality data. The CDC also released data this week showing there was a 4.6% increase in deaths attributable to Parkinson's disease in 2010 (the most recent year for which they have data). [9] [10]
- Between 500,000 and 1.5 million Americans live with Parkinson's, a disease for which there is no cure or treatment to stop the progression. [9]
- Incidence of Parkinson's increases with age, but an estimated four percent of people with PD are diagnosed before the age of 50. [11]

- In the United States, 50,000-60,000 new cases of PD are diagnosed each year, adding to the one million people who currently have PD. [12]

#### China: Alzheimer disease

- According to a meta-analysis of 89 studies published June 7 in a China-themed issue of the *Lancet*, the number of people with dementia in the world's most populated country soared from 3.7 million in 1990 to 9.2 million in 2010. The figures eclipse those from the World Alzheimer Report 2012, which estimated 5.4 million dementia cases in China in 2010. Moreover, a report on global disease burden in the special *Lancet* issue found that the number of deaths in China due to Alzheimer's disease and other dementias doubled between 1990 and 2010, while mortality rates, especially among women, fell steeply during the same period. With continuing growth of China's aging population, these findings suggest the nation is heading for a bigger dementia burden than anticipated. [13] [14]
- The dementia study was led by senior investigators Wei Wang of Capital Medical University in Beijing, and Harry Campbell and Igor Rudan at the University of Edinburgh Medical School in the U.K. Christopher Murray of the University of Washington in Seattle led the analysis of China health trends with collaborators from China and Australia. [13] [14]
- A epidemiology survey report on Alzheimer's disease in Shanghai issued by public health departments show, prevalence of old aged older than 65 years old is 6%, above 80 years old exceeds 30%, prevalence of old aged above 65 years old increases at a rate of 1.4% per annum. [15]
- Survey data in Tianjin, Shanghai, Guangzhou and other large cities show: During the past 20 years (1998 - 2008), the average ages of Alzheimer's disease patients has advanced from 65 years to 55 years, i.e. "younger" 10 years. [16]

#### China: Parkinson disease

- During education activities in Shanghai on the "World Parkinson Day", Prof. Jiang Yu-ping, secretary, neurology committee of China Medical Society stated, the incidence of Parkinson disease during recent 20 years has at least increased over 20 times, such increase might be associated with environment and food factors. [16]
- Prof. Jiang said, based on the statistics of 1986, the incidence of Parkinson disease in China is about 0.047%, and according to Shanghai statistics of 2000, the incidence of Parkinson disease has reached 1.14%. However, national-wide statistics indicate incidence of Parkinson disease has reached about 2%. Based on most conservative estimations, the incidence of Parkinson disease during recent 20 years has at least increased over 20 times. [16]
- Data provided by the Shanghai Municipality Health Education Institute claims, Epidemiological statistics show that China at present (2007) has about 1.7 million Parkinson disease patients. [16]
- "Parkinson's disease is a kind of neurological system diseases, with higher incidence in older age. However, there is a trend of Parkinson disease developing in younger age patients. Before the diagnosed age was more over 70 years old, quite a number of Parkinson disease patients begin to appear in the 30 - 50 age group, it has become the 3rd killer of middle to older age people. [17]

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## 10) 1988-2004 USA incidence of primary liver cancer rapidly rose 90%, China's liver cancer patients accounts for 54.26% of World's total

### USA:

- The incidence of primary liver cancer rose modestly between 1979 and 1988 (14.5 percent) and more rapidly subsequently (90 percent over the period 1988–2004) (Figure 1). Liver cancer was one of the most lethal digestive system cancers, although 5-year survival did increase nearly fourfold during this period, albeit to only 8 percent. [1]
- The number of new cases of hepatocellular carcinoma (HCC), a type of primary liver cancer, has increased in the U.S. over the past several years, reaching an incidence rate of 3.2 cases per 100,000 persons in 2006, according to the latest figures reported by the Centers for Disease Control and Prevention (CDC) in the May 7, 2010 issue of Morbidity and Mortality Weekly Report. [2]

### China:

- At present, cancer prevalence in China is 285.91/100,000, on average every minute everyday 6 persons are diagnosed with malignant cancer. [3]
- Supervision data shows, colon cancer rises faster in the urban areas, as well as thyroid cancer. At present, in urban areas, the prevalence of thyroid cancer already ranks No.4. [3]
- National cancer mortality rates has reached 180.54/100,000, reaching 2.7 million deaths caused cancer ear year. The national rate of mortality caused by cancer in China is 13%, meaning cancer causes one of every 7 - 8 deaths. [3]
- The mortality rate of men caused by cancer is higher than women, with ratio of 1.68/1. [3]
- Regarding kinds of cancer, lung cancer ranks No.1, followed by stomach cancer, then colon cancer, liver cancer and then esophageal cancer. The top ten kinds of cancer amount to 76.39% of all kinds of cancer. [3]
- The cancer with highest mortality rate still is lung cancer, followed by liver cancer, stomach cancer, esophageal cancer and colon cancer. [3]
- Lung cancer has the highest mortality rate in both men and women. The kinds of death causing cancer in men then include liver cancer, stomach cancer, esophageal cancer and colon cancer. In women then include stomach cancer, liver cancer, colon cancer and breast cancer. [3]
- Primary liver cancer in our country is one of the common malignant tumors. Has high mortality rate, ranking No.3 following malignant tumor in the stomach and in the esophagus; but, in the rural areas ranking 2nd place following cancer in the stomach. In China, about 110,000 people die from liver cancer each year, accounting 45% of the total number of deaths caused by liver cancer worldwide. [4]
- China's liver cancer situation is very grim, in 2000 306,000 patients developed liver cancer, and 306,000 mortalities from liver cancer, which accounted for 54.26% of

world liver cancer patients, and 54.64% of all mortalities caused by liver cancer over the world. [5]

- In characteristic of regional distribution of liver cancer in China is higher incidents in coastal regions than inland regions; higher incidents in Southeast and Northeast regions than Northwest, North and Southwest regions of China, and higher incidents in coastal islands and river estuaries regions. [5]
- According to cancer register data 1998-2002 from nationwide 30 cities and counties, China's top three liver cancer areas for men are Qidong of Jiangsu Province, Haimen of Jiangsu Province, and Fushui of Guangxi Autonomous Region, and top three liver cancer areas for female are Qidong of Jiangsu Province, Haimen of Jiangsu Province, and Yanting of Sichuan Province. [5]
- From 1972 to 1999, although the total number of liver cancer patients in Shanghai increased significantly, but age standardized incidence rate reduced, for male and female reduced 26% and 28% respectively. [5]
- In 2006, the Ministry of Health and Ministry of Science & Technology led a national survey on nationwide mortality causes. The Department of Health of the Guangxi Autonomous Region entrusted the Cancer Hospital attached to the Guangxi Medical University to carry out review mortality causes from 9 locations. Survey data indicate, the first 3 causes of death of population in Guangxi respectively are malignancy cancers, respiration system diseases and cerebrovascular disease. During the 70s of the last century, the mortality rate caused by malignancy cancers was 38.29/100,000, during the 90s was 80.48/100,000, and at present is 112.0/100,000, indicating apparent increase. [6]
- The mortality rate of 112.0/100,000, to the over 50 million population of Guangxi means about 50,000 people die from malignancy cancers, the prevalence increase ranks No.1 in China, which makes Guangxi one of the regions with the highest liver cancer and nasopharynx prevalence rate in China. [6]
- 370,000 new liver cancer patients and 536,000 new lung cancer patients appear each year, which is increasing at the pace of 5% each year in China. [6]
- Epidemiology investigation indicates: The liver cancer incidence for males are 26.23/100,000, and for females 11.09/100,000 in Tianjin. [7]

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[http://www.chinadaily.com.cn/dfpd/tianjin/2011-08-28/content\\_3624967.html](http://www.chinadaily.com.cn/dfpd/tianjin/2011-08-28/content_3624967.html)

## **11) Children cancer increasing, especially leukemias, dramatically increased in USA and China.**

USA:

About 12,500 children and adolescents under the age of 20 years are diagnosed with cancer each year. Childhood cancers remain a leading cause of childhood deaths in the United States, despite the fact that advances in health care and treatment have dramatically increased survival from these cancers. [1]

The most common childhood cancers are leukemias, cancers of the blood cells. There are different kinds of childhood leukemia. The most common kinds are acute lymphocytic leukemia (ALL) and acute myelogenous leukemia (AML). Brain and other nervous system cancers are the second most common types of childhood cancers. Of the 12 major types of childhood cancer, leukemias and brain and other nervous system cancers account for 40% of all cases among children less than 20 years of age. Other childhood cancers, in decreasing order of occurrence, include lymphomas, sympathetic nervous system

cancers, soft tissue sarcomas, renal tumors (Wilms tumor and renal carcinoma), bone tumors (osteosarcoma and Ewing sarcoma), malignant germ cell tumors, retinoblastomas, hepatic tumors, and other malignancies. Researchers have studied childhood cancers for many years but still do not know a lot about what causes them. Finding the causes of childhood cancers is challenging because cancer in children is rare and each type of cancer may have different factors that lead to its development. It is especially difficult to identify environmental factors related to childhood cancer because environmental exposures to the parent, the child in the womb, or the child after birth may play a role. Childhood cancers, like adult cancers, may be the result of a mix of genetic, environmental, and behavioral causes, not just one factor by itself. [1]

China:

Tumor prevalence in Children shows trend of increase, on average there is one child tumor patient among ever 10,000 children. The causes of death among children deaths under 14 years old, malignant tumor already ranks No.2. Among all kinds of children tumors, leukemia, brain tumor, malignant lymphoma and neuroblastoma rank the top four, leukemia accounts to 1/3 of all children tumor patients. [2]

Based on survey in a number of cities, the incidence of children tumor each year is 10 per each 100,000. China has about 400 million children, thus new children tumor incidence could reach over 30,000 children. [2]

The increasing trend of children malignant tumors is apparent, with a higher rate in boys than girls. Two age peaks are apparent, 42% develop tumors before 3 years old, thereafter with a lower rate, the 2nd peak appears during period of puberty. [2]

[1] CDC: [Childhood Cancers and the Environment](http://ephrtracking.cdc.gov/showChildhoodCancer.action)

<http://ephrtracking.cdc.gov/showChildhoodCancer.action>

[2] Chengdu Daily, Children cancer incidence increases, how to protect children, 2013-02-20

[http://www.cdrb.com.cn/html/2013-02/20/content\\_1794291.htm](http://www.cdrb.com.cn/html/2013-02/20/content_1794291.htm)

## 12) Inflammatory Bowel Diseases rapidly increased 65 percent increase from 2000 to 2009, and increased 12 times in Shanghai from 2003 to 2013!

USA

- Inflammatory Bowel Diseases (IBD) is a broad term that describes conditions with chronic or recurring immune response and inflammation of the gastrointestinal tract. The two most common inflammatory bowel diseases are ulcerative colitis and Crohn's disease. [1]
- Both illnesses have one strong feature in common. They are marked by an abnormal response by the body's immune system. Normally, the immune cells protect the body from infection. In people with IBD, however, the immune system mistakes food, bacteria, and other materials in the intestine for foreign substances and it attacks the cells of the intestines. In the process, the body sends white blood cells into the lining of the intestines where they produce chronic inflammation. When this happens, the patient experiences the symptoms of IBD. [1]
- The peak age of onset for IBD is 15 to 30 years old, although it may occur at any age. About 10% of cases occur in individuals younger than 18 years. [1]
- CDC claims: Precise incidence and prevalence of Crohn's disease and ulcerative colitis have been limited by (1) a lack of gold standard criteria for diagnosis; (2) inconsistent case ascertainment; and (3) disease misclassification. The data that does exist suggest that the worldwide incidence rate of ulcerative colitis varies greatly between 0.5–24.5/100,000 persons, while that of Crohn's disease varies between 0.1–16/100,000 persons worldwide, with the prevalence rate of IBD reaching up to 396/100,000 persons. It is estimated that as many as 1.4 million persons in the United States suffer from these diseases. [1]
- A new study found, the largest investigation to date has found a dramatic increase in the number of hospitalizations for children with inflammatory bowel disease (IBD) during the past decade in the United States. [2]
- The new study, published online and scheduled for the August 2013 print issue of the Journal of Investigative Medicine, found a 65 percent increase in IBD hospital discharges from 2000 to 2009. The number increased from 11,928 discharges in 2000 to 19,568 discharges in 2009. [2]

China:

- During past 10 years (2003 - 2013), the incidence of inflammatory Bowel Disease in children below 14 years old increased 12 times. [3]
- A study published in Aug. 2013 by Inflammatory Bowel Disease Previously confirms: A disease of the West and rarely seen in China, inflammatory bowel disease (IBD) is now increasing in incidence in China. However, its true incidence is unknown. Conclusion: There is a substantial incidence of IBD in China.[4]

[1] CDC, [Inflammatory Bowel Disease \(IBD\)](http://www.cdc.gov/ibd/)

<http://www.cdc.gov/ibd/>

[2] University Hospitals Case Medical Center, Dramatic increase in hospitalization of US children with inflammatory bowel disease, Science Daily, USA, June 25, 2013

<http://www.sciencedaily.com/releases/2013/06/130625141208.htm>

[3] Health Daily, incidence of inflammatory Bowel Disease in children increased 12 times, 2013-03-01 <http://health.qq.com/a/20130301/000024.htm>

[4] Zhao J et al., First prospective, population-based inflammatory bowel disease incidence study in mainland of China: the emergence of "western" disease. *Inflamm Bowel Dis.* 2013 Aug;19(9):1839-45.  
<http://www.ncbi.nlm.nih.gov/pubmed/23669403>

### 13) Sudden cardiac arrest (SCA) increasing, including in younger people in both USA and China.

USA

CDC confirms:

- About 600,000 people die of heart disease in the United States every year—that's 1 in every 4 deaths. [1]
- Heart disease is the leading cause of death for both men and women. More than half of the deaths due to heart disease in 2009 were in men. [1]
- Coronary heart disease is the most common type of heart disease, killing nearly 380,000 people annually. [1]
- Every year about 720,000 Americans have a heart attack. Of these, 515,000 are a first heart attack and 205,000 happen in people who have already had a heart attack.[2]

The Pediatric Sudden Cardiac Arrest report issued in 2012 by American Academy of Pediatrics reports: [3]

- CDC has estimated that every year in the United States, approximately 2000 patients younger than 25 years will die of SCA. [4]
- Other older reports estimate the frequency of SCA in children and adolescents to be between 0.8 and 6.2 per 100 000 per year. [5] [6] [7] [8] [9]
- Two studies suggest that the frequency of SCA in adolescents and young adults actually may be increasing. [10] One study published in 2003 estimated Sudden cardiac deaths rise 10% in young Americans. [11]

China:

- The number of sudden cardiac arrest deaths reach 544,000 each year, i.e. over 1000 people die of SCA each day, with higher incidence in male than female. [12]
- According to media reports, in 1998 the "120" Emergency Center in Beijing received over 80 sudden cardiac arrest death young to middle age patients, this number rapidly increased to over 270 in 2011. [13]
- Other media reported, the percentage of sudden cardiac arrest deaths at age lower than 50 years old reached 12.65%, increased 1.7% compared with 1998. [13]
- During the 1st quarter of 2013, the "120" Emergency Center in Qingdao registered 848 sudden cardiac arrest deaths, the age of most of them were between 35 - 59 years old, accounting to 25% - 35% of the total visits by the center. [14]

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<http://pediatrics.aappublications.org/content/129/4/e1094.full.pdf>

[4]. Kung HC, Hoyert DL, Xu J, Murphy SL. Deaths: final data for 2005. *Natl Vital Stat Rep.* 2008;56(10):1–120

[5] Corrado D, Basso C, Schiavon M, Thiene G. Screening for hypertrophic cardiomyopathy in young athletes. *N Engl J Med.* 1998; 339(6):364–369

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[9] Shen WK, Edwards WD, Hammill SC, Bailey KR, Ballard DJ, Gersh BJ. Sudden unexpected nontraumatic death in 54 young adults: a 30-year population-based study. *Am J Cardiol.* 1995;76(3):148–152

[10] Spurgeon D. Sudden cardiac deaths rise 10% in young Americans. *BMJ.* 2001;322

(7286):573

[11] SoRelle R. Jump in sudden deaths reported in younger people during past decade. *Circulation*. 2001;103(10):e9019–e9021

[12] News Evening News, At least over 1000 people suddenly die each day in China, incidence higher in male than female., 2012-10-27

<http://news.sohu.com/20121027/n355856691.shtml>

[13] Sina Health, Why does sudden death catch on young people, 2012-07-19

<http://health.sina.com.cn/d/2012-07-19/120840838.shtml>

[14] Qilu Daily News, 70% of Qingdao's citizens have cardiac problems, mental stimulation induced by sudden death, 2013-07-26

[http://qd.ifeng.com/fgqd/detail\\_2013\\_07/26/1039063\\_0.shtml](http://qd.ifeng.com/fgqd/detail_2013_07/26/1039063_0.shtml)

## **Common in both USA and China: Exposure to glyphosate and n-hexane residues through environment pollution, food and chemical extracted food oil**

### **China:**

- **Largest producer of glyphosate of the world.**
- **Largest exporter of glyphosate of the world, including export of glyphosate to Monsanto to produce Roundup formula herbicide.**
- **Massive environment pollution caused by illegal discharge of toxic industrial waste from production of glyphosate.**
- **China is major importer of Monsanto's Roundup, which accounts to 80% of China's herbicide market.**
- **China widely applies Roundup and other glyphosate-based herbicide, causing widespread pollution.**
- **China is largest importer of RR soybeans, RR canola processed into RR soybean food oil and RR canola food oil, flooding the Chinese market**
- **Chinese researchers identified AMPA, metabolites of glyphosate, toxic, in RR soybean food oil.**
- **RR soybean protein powder, containing higher levels of glyphostate, is added to sausages, ham, frozen food, cakes, cookies, bread, even infant formula milk powder and wheat-flour in China.**
- **About 90% of food oil in China, are produced by chemical extraction, using n-hexane as oil extracting solvent, results most food oil contains n-hexane residue, including food oil process from soybeans, canola, corn, rice husks.**
- **Most soybean protein powder in China is processed from soybean cake, the side product of chemical extracted soybean oil.**
- **According to Chinese national standards, up to <50 mg/kg n-hexane residue is allowed in food oil, and up to <500 mg/kg n-hexane residue is allowed in food grade soybean protein powder added to infant formula milk powder.**
- **"EFSA allows chemical extracted RR soybean food oil and soybean protein powder to be added to infant formula milk powder", is the main reason China's Food & Drug Administration Bureau allows such criminal practice!**

## Eleven studies by Chinese scholars reveal harm caused by glyphosate

Eleven scientific studies by Chinese scholars reveal that glyphosate cause damage to proteins and lipids, cause apoptosis and necrosis of liver cells with obvious damage, cause mutagenic and reproductive toxicity, capable of causing birth defects to human offspring.

**1) (1996)草甘膦与试验鼠“肝微粒体蛋白含量明显减少...蛋白含量减少可能与肝细胞受损致使合成蛋白能力下降有关”;**

**1)(1996) Glyphosate and test rat “Liver microsomal protein content decreased significantly ... protein content reduction might be associated with protein synthesis ability reduction caused by impaired liver cell damage.”**

邬惠琼, 草甘膦对大鼠细胞色素 P450 2B1 和 P450 2C11 基因表达的影响, 《卫生毒理学杂志》1996 年第 10 卷第 4 期, 231-234 页

(作者单位: 武汉同济医科大学公共卫生学院环境毒理学研究室。)

Wu Hui-qiong, Glyphosate impact on rat cytochrome P450 2 B1 and P450 2 c11 gene expression, Health Toxicology Journal, 1996 10(4): 231-234 [Chinese]

(Organization: Environment Toxicology Research Section, Public Health College, Wuhan Tongji Medical University.)

<http://www.cnki.com.cn/Article/CJFDTTotal-WSDL604.004.htm>

**2) (2000) “对黄鳝具有明显的遗传学损伤作用”;**

**2) (2000) “causes obvious genetic damage to yellow eel”**

耿德贵等, 除草剂农达对黄鳝致突变性研究, 《徐州师范大学学报(自然科学版)》2000 年 02 期

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**3) (2001) 不同浓度草甘膦药物“对蟾蜍的红细胞微核率和核异常率均有一定程度的影响”;**

**3) (2001) Different concentration of glyphosate “causes certain degree of effect on RBC micronucleus rate and the rate of nuclear anomalies of toads”**

南旭阳, 除草剂“草甘膦”对鲫鱼外周血红细胞微核及核异常的影响[J]. 安徽师范大学学报: 自然科学版, 2001, 24(4): 329-331.

Nan Xu-yang, Impact of glyphosate herbicide on carp peripheral blood erythrocyte micronucleus and nuclear anomalies, Journal of Anhui Normal University (Natural Science Edition), 2001,24(4): 329-331 [Chinese]

<http://www.cqvip.com/qk/97138X/200006/4887295.html>

4) (2002) “对鲫鱼的血红蛋白、红细胞和白细胞影响较大”

4) (2002) “causes rather large effect on Crucian carp hemoglobin, red blood cells and white blood cells”

南旭阳, 除草剂草甘膦对鲫鱼血细胞及血红蛋白影响的研究, 甘肃科学学报, 2002 (4)

(就职机构: 浙江温州师范学院生物与环境科学系)

(Organization: Biology & Environment Science Dept., Zhejiang Wenzhou Normal College)

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5) (2003) “causes certain degree of biological toxicity to loaches”.

南旭阳, 张艳丹, 黄小莲. 除草剂“草甘膦”对泥鳅白细胞的影响[J], 温州师范学院学报: 自然科学版, 2003,24(2):72-74 就职机构: 温州师范学院生物与环境科学学院

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6) (2008) “对小鼠具有生殖毒性并具有一定的致突变作用”;

6) (2008) “causes reproduction toxicity to mice with a certain mutagenic effect”.

中国学者康菊芳 et al., 草甘膦对小鼠的致突变作用研究 (《癌变.畸变.突变》, 2008 年 03 期)

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王非, 农达 41% 草甘膦对人 L02 肝细胞损伤的研究 (中南大学硕士论文) 2008

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## **Twenty-four international and Chinese and scientific studies and epidemiology studies prove that hexane residuals and benzene residuals cause reproduction toxicity to both female and males**

Summary:

- Hexane residuals were found in urine of fathers, mothers and children exposed to application or mixture of glyphosate-based herbicide Roundup, meaning that glyphosate can enter blood circulation of males, females and children.
- Hexane residuals are found can through blood circulation can pass through the placenta and enter into fetus of pregnant rats.
- Hexane is a hormone interrupter, which demonstrates effects harmful to human health at very low dose levels, even by exposure of breathing air with low levels of hexane content.
- Hexane, as well as benzene, i.e. residual contained in hexane solvent produced for vegetable food oil extraction, show that they specifically attack and cause damage to the female reproduction system, as well as attack and cause damage to the male reproduction system and sperms.

[Note: Benzene is a residue of the hexane solvent used for vegetable oil extraction, thus is studied together with the effects of hexane.]

**1) (1987) :”Testicular damage was induced in rats by respiratory treatment with *n*-hexane at a concentration of 5000 ppm. ...after interruption of the treatment, the testicular lesions became increasingly severe, up to complete atrophy of the seminiferous tubules, suggesting an irreversible sterility of the treated animals.”**

C. De Martino et al., Effects of respiratory treatment with *N*-hexane on rat testis morphology: I. A light microscopic study, *Experimental and Molecular Pathology*, Volume 46, Issue 2, April 1987, Pages 199 - 216

F. Angelini Research Institute, Viale Amelia 70, 00181, Rome, Italy

<http://www.sciencedirect.com/science/article/pii/0014480087900669>

**2) (1989): “after cessation of a 61-day inhalation exposure to 1000 ppm *n*-hexane.... Severe testicular atrophy involving the seminiferous tubules with loss of the nerve growth factor (NGF) immunoreactive germ cell line was found. Total loss of the germ cell line was found in a fraction of animals up to 14 months post-exposure, indicating permanent testicular damage.”**

Arch Toxicol. 1989;63(4):296-307.

Testicular atrophy and loss of nerve growth factor-immunoreactive germ cell line in rats exposed to n-hexane and a protective effect of simultaneous exposure to toluene or xylene.

Nylén P, Ebendal T, Eriksdotter-Nilsson M, Hansson T, Henschen A, Johnson AC, Kronevi T, Kvist U, Sjöstrand NO, Höglund G, et al.

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Gisela Stoltenburg-Didinger et al., Neurotoxicity of organic solvent mixtures: Embryotoxicity and fetotoxicity, Neurotoxicology and Teratology, Volume 12, Issue 6, November–December 1990, Pages 585–589

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**4) (1991): “Benzene might have effects on the reproduction function of female workers and intelligence development of their offsprings.”**

Yu Dong-xue, Liu Rui-hua, Effects of benzene compounds in female reproductive function and their offspring, Industrial Health & Professional Disease, 1991(6) [Chinese]

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Am J Ind Med. 1995 May;27(5):699-713.

Reduced fertility among women exposed to organic solvents.

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Department of Epidemiology and Biostatistics, Institute of Occupational Health, Helsinki, Finland.

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Int Arch Occup Environ Health 1997;69 (5):311-6.

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ULSS 13 Dipartimento di Prevenzione, Dolo, Italy.

<http://pubmed.cn/9192214>

**6. (1997): "Exposure to more than the highest allowable concentration and lower than the highest allowable concentration of benzene and its homologue has certain effect on female menstruation and pregnancy"**

Jiang Qi-de et al., The effect of exposure to different concentration of benzene on the female menstruation and pregnancy outcome, Industrial Health & Professional Disease, 1997(2) [Chinese]

<http://www.cnki.com.cn/Article/CJFDTOTAL-GYWZ199702024.htm>

**7. (1997): "benzene mixture causes harm to genetic material of workers. The degree of harm indicates a trend increases with duration of exposure."**

Zhao Guo-hua et al., Observation of exposure to low concentration benzene compounds in workers cell micronucleus rate and chromosome fracture rate, Modern Preventive Medicine, 1997(4) [Chinese]

<http://www.cnki.com.cn/Article/CJFDTOTAL-XDYF704.004.htm>

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Chen Da-fang, et al., The effect of pregnant women exposed to benzene mixture compounds on fetal growth and development, Disease Control Journal, 1997(4) [Chinese]

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Finnish Institute of Occupational Health, Department of Epidemiology and Biostatistics, Helsinki, Finland.

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