

Traffic fumes may damage babies' breathing



Crossroads: The polluted junction at the corner of Crookes Road in Broomhill and, inset, Professor Mark Everard

Pollution link to poorly tots

EXPERTS at Sheffield Children's Hospital are launching a groundbreaking study to investigate the links between exposure to traffic pollution and a severe respiratory condition which affects babies.

The research comes after The Star revealed on Monday the city could be forced to pay £300 million in EU fines for failing to meet quality air targets.

Sheffield Council is now drafting an action plan to tackle the alarming statistics, which have revealed hotspots for nitrogen dioxide – created when nitric oxide, a toxic gas produced by vehicle exhausts, is oxidised in the air.

Blackspots include the junction of Whitham Road and Crookes Road in Broomhill, Chesterfield Road in Meersbrook, and Fitzalan Square in the city centre as well as Derwent Crescent next to the M1 at Brinsworth.

The impact of the high levels of pollution on babies' health is now set to be investigated at Shef-

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field Children's Hospital's clinical research facility.

Every winter hundreds of babies are admitted to the hospital suffering severe bronchiolitis – an inflammation of the smallest air passages of the lungs.

The condition can require intensive care treatment, with causes suspected to include nitric oxide from car exhausts, industry fumes and cigarette smoke.

Experts are now planning a two-year study in which they will examine traffic pollution levels from monitoring stations in Tinsley, the city centre and Ladybower reservoir in Derbyshire – comparing nitric oxide levels with rates of hospitalisation to find out if there is a link.

They will undertake work with patients and in their labs, where they will be able to mimic the epi-

demics in a test tube and explore the interaction of the virus and cells.

Consultant paediatrician Prof Mark Everard said they deal with bronchiolitis epidemics each year, brought about by respiratory syncytial virus or RSV.

He said: "These epidemics place strain on the hospital with many hundreds of babies being admitted each winter. Admissions have increased during October to March when the epidemic is at its highest.

"There is no vaccine and no effective treatment other than good supportive care including oxygen therapy. The intensive care unit is also placed under strain due to bronchiolitis.

"The rates of hospitalisation are greatest in industrialised areas and work at Sheffield Children's Hospital suggests this is probably related to nitric oxide. It is the one pollutant that peaks at the same time as RSV."