

Statement by Professor Rory Shaw:

### Reducing Air Pollution in Bath

The problem with air pollution is that it is invisible and everywhere. Pollution kills and disables us humans by causing the major killing diseases of heart attacks, stroke, lung cancer, chronic bronchitis, and asthma. Pollution can kill quickly. There are more stroke and heart attack fatalities within hours of a pollution spike. Pollution also leads to progressive accelerated disability, with cost to the patient and NHS. In children there is progressive life-long disadvantage due to recurrent infection and impaired lung growth as well as time off school.

There are two aspects to the science. The more visible the smoke and the more you can smell it, the greater the number of partially combusted particles which in turn have been rendered toxic by heating. Good examples of the most dangerous smoke are bonfire smoke, wood and coal smoke. The second very dangerous type is the smoke containing microscopic toxic soot particles (PM10s and PM2.5s) ) which penetrate deep into the lungs past the body's normal defense systems. These are released by diesel engines.

Bath has a particular problem. The steep valleys restrict pollution dispersal. We have canal boats which traditionally burn solid fuel. We have not enacted bonfire restrictions in built up areas. Many homes use wood burning stoves. There are also still many diesel vehicles on our roads.

On the plus side, Bath people are sensible, proud of their City and interested in their environment. The first step has to be a well thought through public education campaign, combined with reminders about adhering to current legislation (eg for the barge owners). In addition, I suggest small but high-profile steps. Make public announcements about rigorously enforcing the Highways Act 1980, by issuing Abatement notices to any householder whose bonfire smoke spreads outside the curtilage of their garden. Randomly inspect Barges emitting yellow smoke. These will upset very few people, yet make a small but significant difference to pollution and importantly show that the Council has started to take action.

I would focus my education campaign around mothers and children. Damaging children's health for life seems a cruel thing to do just because we can't be bothered to avoid causing air pollution.

Professor Rory Shaw, Retired Consultant Chest Physician

Useful resources:

Royal College of Paediatrics and Child Health website

Hammersmith and Fulham Council re danger from wood burning