

November 26, 2010

**The Onondaga County Medical Society wishes to express its strongly held opinion that there is insufficient scientific evidence available to assure that the process of hydrofracking to enhance natural gas production is safe.**

Because of the potential for significant health problems arising from exposure to unknown chemicals in drinking water and through agricultural uses of contaminated water, we believe that proposals for hydrofracking in Upstate New York should be made contingent upon the provision of sufficient scientific evidence to ensure that the public's health is protected. Among the scientific issues that should be addressed are the following:

- 1) The additives to the water used to force natural gas from bedrock shale should be described in detail, including the components and concentrations of the additives.
- 2) Detailed studies should be performed to determine where the water will migrate after injection. This is especially of concern in those areas of the Marcellus shale that are at or near the surface, and where contaminated ground water remains a real concern.
- 3) The timeframes for the waters injected and their solubilized contaminants to spread throughout the region may be measured in several years, as geologic processes often evolve slowly, but this should not preclude the development of well-performed studies to measure these effects before widespread hydrofracking is approved.

Anecdotal reports of well contamination and the new phenomenon of natural gas seepage through wells and into personal water supplies should be investigated thoroughly by an independent third party with sufficient equipment and training to render an informed opinion as to the relationship of the gas escape and hydrofracking. The biological effects of each of the additives proposed for hydrofracking should be made public, and if insufficient investigations have been performed, they should proceed before these additives are used.

The implications of a contaminated ground water supply are substantial. We do not wish to recreate water-linked disasters such as Onondaga Lake's contamination or the contamination that occurred in association with the WR Grace Company in Woburn, Ma., which was linked to multiple cases of childhood leukemia in the 1970s.

The assurances offered by the drilling companies, and statements that such things cannot happen because of the geologic formations present are not reassuring, as the companies' incentives are to produce gas and profit, and assumed impermeability of underlying strata is a hypothesis rather than a demonstrated fact.

The potential for migration of contaminated hydrofracking water delivered under pressure is quite real, and the permeability characteristics of underlying strata have been based on limited sampling. I believe that only through an extensive sampling process with test wells could any realistic data be developed.

David B. Duggan, M.D.

*David Duggan, M.D., is president of the Onondaga County Medical Society.*

