

# Nano Gold Particles can Drop PSA Level

Hsin-Der Shen\*

*N. Kung Industrial Co., Ltd.*

**Abstract:** Gold NPs, colorless, can decrease PSA levels, when prescribed at the correct dosage and taken with water. The nano gold content in this research was 66 ppb with particles size of 7.5nm. These conclusions were based on the improvements in the symptoms caused by prostate gland enlargement, such as a weak urinary stream, a frequent urge to urinate, and a feeling that the bladder never completely empties. After two months of drinking nano gold water, such conditions greatly improved. We then tested the effects of nano gold on a prostate-specific antigen (PSA). We did several tests on three cases in the following:

**Case 1:** The medical records for blood PSA is a prostate cancer.

**Case 2:** The medical records for blood PSA is between 4 to 5.

**Case 3:** The medical records for blood PSA is close to zero but with a prostate cancer history.

All these cases are successfully dropped the PSA level after taking nano gold water. We also did the experiments with nano gold in 1. CO oxidation and Formaldehyde decomposition 2. Plant growth and germination faster. Then we find that the gold NPs can work as catalysts to decompose the chemical and organic solvents compounds in the path of urine system in our body and drop the PSA level.

**Keywords:** Gold NPs, Drop PSA level, Prostate gland enlargement, Prostate cancer, Catalyzed CO, Boost plant growth, Germination, Nano gold water.

## 1. INTRODUCTION

Gold NPs can decrease PSA levels, when prescribed at the correct dosage and taken with water. The gold NPs content in this research was 66 ppb [1], with particles size of 7.5nm. Previous published in [7, 8], the gold NPs are all nano gold compound, but this paper is only nano gold particles in the water without any other chemical elements. These gold NPs improve in the symptoms of prostate gland enlargement, such as a weak urinary stream, a frequent urge to urinate, and a feeling that the bladder never completely empties. After drinking this nano gold water 100cc per day for two months, such conditions greatly improved. We then tested the effects of nano gold water on a prostate-specific antigen (PSA). Since high PSA blood levels are associated with high incidence of prostate cancer, by reducing the level of PSA, we can therefore decrease the risk of prostate cancer. Although the PSA level will increase with the age, the gold NPs will decrease the PSA level disregarding the age. This is the better treatment than current clinical treatment for prostate cancer includes radical prostatectomy, radiation therapy, hormonal therapy and cryosurgery. And although urologists can control prostate cancer using such treatments, potential side effects include urinary incontinence and impotence. Hormonal therapy is also associated with decreased libido, sweats and hot flushes.

## 2. CASE STUDIES

We did several tests on three cases with high PSA levels in Ref [2]:

**Case 1:** The medical records for blood PSA is a prostate cancer.

**Case 2:** The medical records for blood PSA is between 4 to 5.

**Case 3:** The medical records for blood PSA is close to zero but with a prostate cancer history.

Case 1 had a recorded PSA level of 193. The diagnosis was confirmed as adenocarcinoma after a prostate biopsy. The patient underwent hormonal treatment for several years. After taking 150cc of nano gold water daily for 2 years, the patient's PSA dropped considerably to a level of 1.93. It subsequently dropped further and has remained at 0.3 for the past year.

Case 2 had a recorded PSA level of 4.365. According to the doctor's digital examination, the patient was found to have an enlarged prostate gland and therefore was undergoing treatment for such a condition. The patient also took 100cc of nano gold water daily for six months, which significantly reduced his PSA level to 1.61. There has been no increase over the past year. We also did the several tests in Europe, the same result that PSA level dropped from 4.8 to 4 in six months.

\*Address correspondence to this author at the 208 Min-Shen w, Rd. Taipis, Taiwan, R. O. C; Fax: +866-2-25595953; E-mail: crystal@seed.net.tw

Case 3 was diagnosed with prostate cancer and therefore was put on hormonal treatment for some time. As he is a doctor, trained in western medicine, he monitored his own progress and took high drug dosages until he reduced his PSA level to zero. The patient did not however want to continue on such high dosages, due to the side effects of long term pharmaceutical treatment. He therefore began to take 100cc of nano gold water daily for the following year. During that year his PSA level was monitored on five occasions, revealing a constant level of zero. There has been no increase over the past year.

### 3. EXPERIMENTS

In trying to find out how gold NPs reduce PSA levels, three experiments were conducted.

1. This experiment uses gold NPs (7.5nm) inside a water-type air cleaner (an air cleaner using water to filter air) in Figure 1. The gold NPs catalyzed various kinds of chemical reactions while air was being sucked through the water. Ref [3, 4] show that gold NPs can rapidly oxidize the air's carbon monoxide into (CO<sub>2</sub>) and nitrogen oxide. The surface cover of the water-type air cleaner's entrance and fan blade were coated with gold NPs. When the air was sucked in by the fan, the carbon monoxide was oxidized by the gold NPs and dissolved by the water. We measure the gas concentration in the entrance and exit of this air cleaner in the following test:

A. Carbon monoxide (CO) from burning charcoal, B. Formaldehyde. Then we start to test as below:

A. Gold NPs coated water-type air cleaner was put into a 58x40.5x36cm box. Burning charcoal was added to the box to create carbon monoxide (CO). When the concentration of CO had reached 696ppm, the air was sucked into the air cleaner. The CO concentration in

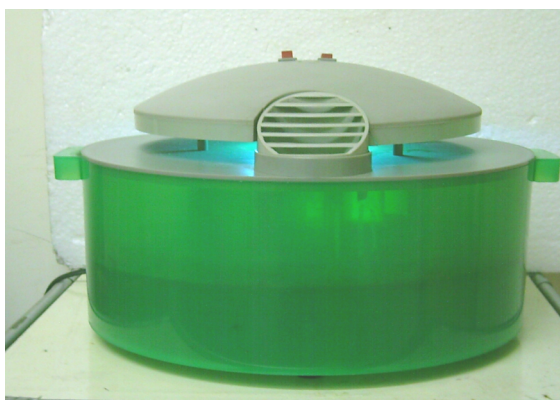


Figure 1: water type air cleaner.

the box dropped to 63ppm after one minute and to 0ppm after another three minutes.

B. Gold NPs acting as a catalyst can dissolve organic solvents. The experiment was as follows: The gold NPs coated water-type air cleaner was put into a 58 x 40.5x36cm box. Formaldehyde was released into the box, at an initial concentration of 32ppm. The air and formaldehyde was then sucked into the air cleaner. The formaldehyde concentration dropped from 32ppm to 0ppm in one second. Also see Ref. [6] it is clearly defined that gold NPs prove it is a good catalyst and work well in eliminating Styrene, Benzene, Toluene and other organic solvents in the water and air. The test sees <http://www.youtube.com/watch?v=l2APgGD0xCk> and <http://www.youtube.com/watch?v=tsWMniBbxLQ>.

We may eat small amount of organic solvents and chemical compounds from pesticides, food preservatives and plastic containers. After ingesting these organic solvents and chemical compounds, they pass out through our urinary system. But some remains and accumulates in the path of urine and bladder in our bodies like moss on a stone in water. From above experiments, we prove that the gold NPs can work as catalysts to decompose the chemical and organic compounds in the path of urine system in our body and thereby reducing PSA levels.

2 In order to see the effect of gold NPs on plants, green-bean seeds and soy-bean seeds were treated with nano gold water and normal water. Subsequent growth rates were compared.

A. The growths of two green bean plants were recorded. One was watered with nano gold water, the other, the control, with normal water. The plant watered with nano gold water was 15cm longer than the one watered with normal water after eight days' growth in Figure 2. We found that gold NPs boosted plant growth.



Figure 2: Gold NPs boosted plant growth.

B. The growths of two soy-bean plants were recorded. One was watered with nano gold water, the other with normal water.

Each plant produced twenty soy-bean seeds. In December the seeds were planted under the same conditions and it was found that the percentage of seeds that germinated from the nano-gold watered plant was 25%, while the percentage from the other plant was just 5% see Figure 3. The nano gold water helped germination.



**Figure 3:** Nano gold water helped germination.

Therefore, it can be seen that gold NPs are good nutrition for green beans and soy beans.

3. Using the technique of cancer detection [5], nano gold particles can bind tumors. The fact that PSA levels drop shows that cancer cells also shrink. Then it is clear that there is a relationship between PSA levels and gold NPs. Are there any side effects of using this quantity of gold NPs? All cases in this study report a great improvement in micturition. There was no urinary incontinence after taking nano gold water. No side effects were reported in these cases although nano gold water was taken over a two year period. Because of the low concentration of such small particles of pure gold, it is not harmful to the body as seen in the previous plant tests. As nano gold water can assist the

effects of regular medical treatment, it can be used as a supplement to it.

### 3. CONCLUSIONS

Gold NPs used for currently cancer detection or drug delivery are larger than 7.5nm. But our special made of nano gold water, the size of 7.5nm or smaller can act as catalysts to dissolve organic solvents and chemical compounds which accumulate in our body during our life time. This also will improve the symptoms of, a weak urinary stream, a frequent urge to urinate, and a feeling that the bladder never completely empties and no side effects. The result is helping to reduce PSA level. Please find enclosed.

### ACKNOWLEDGE

Thanks for this SEM test by Mr. **Yu-Chung Chang**. The SEM measurement was done by the JEOL 6700F scanning electron microscope in Prof. Li-Chyong Chen lab, of Center for Condensed Matter Sciences, National Taiwan University.

### REFERENCES

- [1] The nano gold water content has been tested by SGS Taiwan Ltd. through the test method of NIEA W311.51B.
- [2] "Nano gold can drop PSA level", Hsin-Der Shen, NSTI-Nanotech 2007, www.nst.org, ISBN 1420061836 2007; 2.
- [3] Sivadinarayana C, Kumar D, Yan Z, Lunsford JH and Goodman DW. Catalytic studies on supported nano-gold catalysts. Department of Chemistry, Texas A and M University, College Station, Texas 77843.
- [4] Choudhary TV and Goodman DW. Oxidation catalysis by supported gold nano-clusters. Topics in Catalysis 2002; 21: 1-3.  
<http://dx.doi.org/10.1023/A:1020595713329>
- [5] Gold nanoparticle probes may allow earlier cancer detection. Vince Dollard, Emory university.
- [6] Nano gold proves it is a good catalyst. Nature 454 981. Source: natotechweb.org.
- [7] Yarzhemsky VG, Kazaryan MA, Bulychyev NA, Dyakov YA, Kosheleva OK and Chen CH. Proc SPIE 9810, XII International Conference on Atomic and Molecular Pulsed Lasers, 981007 (December 15, 2015).  
<http://dx.doi.org/10.1117/12.2225237>
- [8] Takei T, Akita T, Nakamura I, Fujitani T, Okumura M, Okazaki K, *et al.* Advances in Catalysis, 55, B.C. Gates, F.C. Jentoft ed.